iPECS

Administration
&
Maintenance Manual

Revision History

Issue	Date	Description of Changes
1.0	16-Aug-02	Initial release
1.1	8-Nov-02	General editing and update to Software version 1.1Bd
2.0	29-Aug-03	Final update for iPECS Software release 2.
2.1	12-Feb-04	Add Offline Web Admin
2.2	19-Apr-04	Update for iPECS S/W Phase 2
2.3	18-May-04	Update for iPECS S/W Phase 2
2.4	28-May-04	Update for iPECS S/W Phase 2 (Web Admin)
2.5	29-Jul-04	Update for iPECS S/W Phase 2 (2.0Ai base)
3.0	22-Feb-05	Update for iPECS S/W Phase 3 (3.0As base)
4.0d2	13-Aug-06	Update for iPECS S/W Phase 4, as of 7-02-06 General edits throughout. Section 1.5 VLAN support added Added section 1.6 Menu Structure Keyset Admin PGM 102 btn 8 updated description of Second System address. PGM 102 btn 16 & 17 added LAN2 port IP address for redundancy. PGM 103 btn 3 updated for MISC only. PGM 103 btn 4 and 5 modified for VSF and MCIM, respectively. PGM 109 btn 10 and 11 added for TNET and Join Conf Room respectively PGM 111 btn 18 and 19 added for VM Gateway and SIP User ID respectively. PGM 112 btn 20~24 added for Call Recording and back-up VM station. PGM 113 btn 18 & 19 added for VMIM/VSF notification to e-mail. PGM 124 modified for registered station as linked pair. PGM 132 btn 5 added for TNET. PGM 141 btn 11 added for IP protocol. PGM 160 btn 17 added for Conf Room. PGM 161 btn 18 added for unified message print for serial interface PGM 161 btn 19 added for message wait and two-way record warning tone. PGM 161 btn 20 added for CPU redundancy. PGM 165 btn 29 and 54 added for VMIM/VSF BGM/MOH RTP & RTCP ports. PGM 171 Added VMIM/VSF Music source PGM 177 btn 8 & 24 modified for left right deletion. PGM 179 added for VMIM/VSF Multi-language support. PGM 190 & 191 added UCS group. PGMs 330~333 added for TNET and Fail-over. Web Admin Added changes as above. Deleted Menu Tree structure from section 3.4, added section 1.6 see above. Added section 3.3.3 Java applet for Web password encryption Station SIP Attributes 2 added for SIP protocol support. PGM 132 added UMS Sender e-mail address for VM notification to e-mail. SIP Gateway Attributes added for SIP protocol support. PGM 177 added SMDR System Domain Name to allow FQDN support for e-mail delivery. Zone Data section 3.5.12 added for Zone configurations Device Login section 3.5.13 added for Remote Registration Table and Password Login/out. Station Program section 3.8 expanded.
4.0d3	30-Sep-06	Update for iPECS S/W Phase 4 (General edits for errata)
4.0d4	01-Dec-06	Update for iPECS S/W Phase 4 (General edits for errata)

Issue	Date	Description of Changes
4.0d5	15-Mar-07	Updated for iPECS S/W Phase 4 (General edits for errata) Keyset Admin PGM 174 – Attr 6 Deleted (Purpose : MISC) PGM 435 – firewall protect default value : from OFF to ON Web Admin PGM 106~109 – Updated in case of MFIM600 PGM 174 – Attr 6 Deleted (Purpose : MISC) PGM 435 – firewall protect default value : from OFF to ON
4.0d6	13-Jun-07	Updated for iPECS S/W Phase 4 (General edits for errata) Keyset Admin PGM 100 – Insert warning when change country code PGM 113 – insert a field (“BY PASS DTMF”) Web Admin PGM 113 – insert a field (“BY PASS DTMF”)

Issue	Date	Description of Changes
5.0		Updated for iPECS S/W Phase 5.0 Section 2.3.2.2 partially modified for WTIM Gateway Section 2.3.5.3 & 2.3.5.5 & 2.3.7.2 & 2.3.9.5 partially modified for expanded VSF announcement, was 20 now 70 Section 2.3.18 DECT ATTRIBUTES added Section 3.5.15 DECT Data added Keyset Admin PGM102 btn 18 added for DNS IP address PGM103 btn 7 added for WTIM Gateway PGM109 btn 12,13 added for Enter Into Conf-Group, Station ICR PGM111 btn 21 added for Serial DSS usage option PGM111 btn 22 & 23 added for ICM Dial/Ringback Tone PGM115 Serial DSS button program description is added PGM129 added for LESS Label Edit PGM132 Codec Type G.722 added for LIP-80XX Keyset PGM142 btn 15 & 16 added for PSTN SMS outgoing & received station PGM142 btn 17 & 18 added for CO line Dial/Ringback Tone PGM160 btn 24 added for SIP station connection mode PGM161btn 22 & 23 added for PSTN SMS number & protocol PGM161 btn 24 added for added menu PGM169 btn 4 added for weekday display mode PGM177 btn 26-29 added for SMDR Interface, SMDR ICM, disconnect cause PGM178 btn 3 & 4 & 5 added for DST(Daylight Saving Time) ability PGM195 added for NTP Attributes PGM231 destination type 12 added for Voice Mail box PGM231 destination type 13 added for ICLID Routing table PGM231 flex button 7 added for auto ring assign table PGM325 added for Network feature code table PGM444 added for Zone Holiday Assignment Web Admin PGM102 insert a filed(“DNS IP Address”) PGM109 btn 12,13 added for Enter Into Conf-Group, Station ICR PGM111 btn 21 added for Serial DSS usage PGM111 btn 22 & 23 added for ICM Dial/Ringback Tone PGM115 Serial DSS button program and LSS Label edit description inserted PGM132 Codec Type G.722 added PGM142 btn 17 & 18 added for CO line Dial/Ringback Tone PGM161 btn 24 added for added menu PGM169 btn 4 added for weekday display mode PGM177 btn 26-29 added for SMDR Interface, SMDR ICM, disconnect cause PGM195 added for NTP Attributes PGM196 added for SNMP Attributes PGM197 added for Cabinet Attributes PGM231 insert a field(“Auto Ring Mode Table”) PGM231 insert a destination type PGM325 added for Network feature code table PGM439 insert a field(“Display Time Zone”) PGM444 added for Zone Holiday Assignment Web Admin – Station Program Section 3.8.3 added for Station ICR Scenario Section 3.8.9 added for Conference Group Update VSF memory/channel capacity Update and add new attributes for SIP G/W Module Programming Option Section 3.5.3.4 SIP Gateway Module
5.0d1	07-Jan-08	Update capacity table for iPECS-1200.

Issue	Date	Description of Changes
5.0d2	17-Feb-09	Add group name for Terminal/Circular/VM/UCS.
5.0d3	17-Feb-09	Add instruction to expand BRI channel of iPECS-50B in section 1.4.2. Change MFIM replacement procedure in the section 1.4.2.
5.0d4	01-Apr-09	Add device type field in the PGM 235(Register table).
5.0d5	16-Apr-09	Add a field(ISDN REDIRECTING NUMBER) in the PGM 143.
5.0d6	09-May-09	Add a field(4th~9th) in the PGM 161.
5.0d7	15-May-09	Add Unused line type in the PGM 140 Add Reject Anonymous in the PGM 142 Flex19. Add SMS protocols in the PGM 161 Flex23. Add Long time call monitoring in the PGM 177 Flex6. Add Net Num Plan Bin in the PGM 222 Flex7. Rearrange Destination type index and wording in the PGM 231. Add error, busy, no answer destination in the PGM 228 Flex 11 ~ Flex13 Add Outgoing mail box destination in the PGM 114 Flex19 Add PPP IP address in the PGM 205 Flex6 ~ Flex7 Web Admin Add PGM 101 – Device Port Num Change
5.0d8	12-Jun-09	Add PGM 451, 20th and 21th. 20th(Print out strings those are used to display flexible button) 21th (Print out strings those are used to activate feature)
5.0d9	17-Aug-09	Web Admin Add iPECS – Micro content

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1. INTRODUCTION

1.1 MANUAL APPLICATION

This manual provides detailed information on the database management of the iPECS Series systems. The iPECS Series is available with several versions of the call server configuration including the 31 channel iPECS-Micro, the 50 channel iPECS-50, the 100-channel MFIM100, the 300-channel MFIM300, the 600-channel MFIM600 and the 1200-channel MFIM1200. Several other variations exist between systems based on the model employed as shown in Table 1.1-1 System Capacity Chart.

Table 1.1-1 System Capacity Chart

DESCRIPTION	CAPACITY					
	iPECS-Micro	iPECS-50	MFIM100	MFIM300	MFIM600	MFIM1200
Main Cabinet	n/a	n/a	10 slots	10 slots	10 slots	10 slots
System Capacity	31 ports	50 ports	100 ports	300 ports	600 ports	1200 ports
Stations*1	26 (Basic: 2 SLT)	50 (Basic: 2 SLT)	70	300	600	1200
PSTN circuits*1	5 (Basic: 5 VOIP channels)	max 42, basic **iPECS 50A** std 4 PSTN + VoIP **iPECS 50B** std. 4 BRI + VoIP	42 (Basic: 6 VOIP channels)	200 (Basic: 6 VOIP channels)	400	600
Max. RSGMs*2	13	25	35	150	300	600
Attendants	4	4	4	5	5	5
Serial Port (RS-232C)	n/a	1	1	1	1	1
USB Host port	1	1	1	1	1	1
Alarm/Door bell input	n/a	1	2	2	2	2
External Control Relays	n/a	1	2	4	4	4
Music Source Inputs	n/a	1	2	2	2	2
Power Fail Circuit	n/a	1	4	4 + Ext. PFTU (6 optional)	4 + Ext. PFTU (6 optional)	4 + Ext. PFTU (6 optional)
External Page zones	n/a	1	2	2	2	2
Internal Page Zones	10	10	10	35	35	100
System Speed Dial	800 (48 digits)	800 (48 digits)	800 (48 digits)	3000 (48 digits)	6000 (48 digits)	12000 (48 digits)
System Speed Dial Zones (Groups)	10	10	10	10	20	50
Station Speed Dial	20 (48 digits)	20 (48 digits)	20 (48 digits)	100 (48 digits)	100 (48 digits)	100 (48 digits)
Last Number Redial	10 (48 digits)	10 (48 digits)	10 (48 digits)	10 (48 digits)	10 (48 digits)	10 (48 digits)

DESCRIPTION	CAPACITY					
	iPECS-Micro	iPECS-50	MFIM100	MFIM300	MFIM600	MFIM1200
Save Number Redial	1 (48 digits)	1 (48 digits)	1 (48 digits)	1 (48 digits)	1 (48 digits)	1 (48 digits)
DSS Consoles/Station	1	3	3	9	9	9
SMDR buffer	5000	5000	5000	10000	15000	30000
CO Line Groups	20	20	20	72	72	200
Station & Hunt Groups	12	40	40	48	48	100
Station & Hunt Group Members	26	50	70	70	70	200
Executive/Secretary pairs	10	10	10	36	36	160
Authorization Codes	500(26/474)	500(50/450)	500(70/430)	1000(300/700)	2000 (600/1400)	4000 (1200/2800)
VSF[*3]	210(175) minutes (4 channels)	280(245) minutes (6 channels)	210(175) minutes (6 channels)	210(175) minutes (6 channels)	n/a	n/a
VMIM	n/a	9 hours	9 hours	9 hours	9 hours x 6	9 hours x 30
MCIM	1	2	2	4	8	8
WTIM	16	16	16	32	32	32
VoIP channels[*4]	5	4/8	6	6	n/a	n/a
Redundancy	No	No	Yes	Yes	Yes	Yes

Note 1 *The station and CO Line maximums are not simultaneously; total ports cannot exceed 100 with MFIM100, 50 with IPECS-50, 300 with MFIM300 and 600 with the MFIM600 and 1200 with the MFIM1200.*
Note 2 *For maximum RSGM connection ports, calculation formula is ports = available system station ports)/2, there must be sufficient VoIP channels to support packet relay for RSGM rtp packets.*
Note 3 *16 M byte is used for prompt (35 minutes)*
Note 4 *iPECS-50 can support 8 VoIP channels if G.711 is used or4 channels if complex codec (G.723.1/G.729) is used*

1.2 GENERAL

iPECS can be programmed to meet each customer's individual needs. System programming may be accomplished by entering the "**PROGRAM MODE**" at an assigned Admin Station or by pointing a Web Browser at the system's MFIM private/public IP address. Section 2 provides a description for data entry using the Admin Station, and Section 3 provides instructions for entering data when using a Web Browser. Note that some parameters are available through Web Admin and not the Keyset Admin.

This section provides general information. An index to database entries, default value charts for the Flexible Numbering Plan, Fixed Function dial-codes and the entire database are provided in Appendix A through D, respectively. The index and charts are helpful references when entering data into the system's database.

1.3 INITIALIZATION

When power is applied to the MFIM or the MFIM Reset button is pressed, the system will initiate the “Power-up” routine. During the Power-Up routine the system will check the Initialization switch (4th position of the MFIM DIP-switch), refer to the iPECS Description and Installation Manual section 4.4.2. If the switch is in the OFF position, the system will perform a simple Power-Up routine; clear all scratch-pad memory, load run-time programs, establish communications with each registered gateway Module and iPECS terminal, send RESTART commands and load appropriate settings to the Modules and terminals. If a Module or terminal does not respond after several attempts, the system places the device in an out-of-service mode but maintains the database settings. Once the Power-up routine is complete, the system will conduct normal operations.

If the Initialization switch is in the ON position, in place of the Power-Up routine, the system will perform the full Initialization procedure. The initialization procedure will set the system database to default values, refer to Appendix D. Further, during the full initialization procedure, the system will establish communications with each gateway Module and iPECS terminal for registration. This communication will use the default device IP address and using the MFIM MAC address for system identification. The system will assign IP addresses and Sequence Numbers for each gateway Module and iPECS terminal and use these values for subsequent communication and logical assignments of numbering plans, respectively. In addition, the system sends commands to modify all settings to the default values, including IP addresses but maintains the existing Sequence Numbers. After successfully registering, should a device not respond to several attempts by the system, the system places the device in an out-of-service mode but maintains the database. Once initialization is complete, set the initialization switch to the OFF position to protect the database. The system must be restarted to complete the initialization.

1.4 REGISTRATION

1.4.1 Normal Registration Process

Module & Terminal

When power is applied and an Ethernet link is established, an unregistered device will attempt to discover and register with a local (on the same LAN) iPECS system. The Module or terminal will send a registration request to the assigned iPECS system (MFIM) IP address. If no response is received, the device will generate a Multi-cast discovery request for registration.

Remote iPECS Phone & Remote Services Module

A remote device, iPECS Phone or gateway Module, registers with the system using the MAC address of the device. The MAC address must be assigned in the system database and the IP address of the system must be assigned in the remote device. Using this address, the remote device will attempt to register with the assigned iPECS system. When the system receives the registration request, the MAC address is compared with the database to authenticate the remote device. With a matching MAC, the system will accept the registration request and provide the remote device with the appropriate settings. Note that the position of the MFIM Registration switch does not affect remote registration.

iPECS system
When power is applied, an Ethernet link is established, and the Registration switch (MFIM DIP-switch position 3) is in the ON position, the MFIM will send a Multi-cast request to unregistered gateway Modules and iPECS terminals for registration.

When the system receives a valid registration or discovery request, and the Registration switch (MFIM DIP-switch position 3) is in the ON position, the system will respond to the gateway Module or terminal with a Registration command including the system IP and MAC address. During the registration process, the Module or terminal will receive data from the system including a Sequence Number, IP address, RTP characteristics, etc, as well as default settings appropriate to the type of Module or terminal. Once registered, the Module or terminal will maintain the system IP and MAC address in non-volatile memory and will not attempt further registrations.

If the Registration switch is in the OFF position, the system will not respond to normal registration requests from a local device.

1.4.2 Replacement Module Registration

Under certain situations, it is necessary to force the registration of gateway modules and terminals specifically when an MFIM, gateway Module or iPECS Terminal is replaced. When replacing an MFIM, gateway Modules and iPECS terminals must be forced to register with the new system. With Module or terminal replacement, the system must recognize the “replacement” status to transfer the existing database values.

When replacing an MFIM, after following the instructions of section 4.4.2 in the iPECS Description & Installation Manual, the local Web interface is used to access the system. The user may update the system database using the database downloaded from the previous MFIM memory.

Using the Terminal mode Command Line interface(“maint>reset ip”), the user provides the new MFIM with the IP address of the previous MFIM, and issues the Register command. The new system will then send a Uni-cast Register command to each gateway Module and iPECS terminal registered to the previous system. This Register command will include the previous system IP address. These commands are repeated several times only. As communication is established, the new MFIM will update the settings of the gateway Modules and iPECS terminals appropriately. When the gateway Modules and terminals respond, they are registered to the new system.

When replacing a gateway Module, use **PROGRAM CODES** 103 and 104 (in Web Admin “System & Device IP Address Plan” and “CO Gateway Sequence Number”) to delete the existing MAC information and assign the MAC information for the new module. Install the new gateway Module.

When replacing an iPECS terminal, using **PROGRAM CODES** 103 and 105 (Web Admin “System & Device IP Address” and “Flexible Station Numbering Plan”), delete the MAC information for the previous iPECS terminal and assign the MAC information for the new iPECS terminal. Install the new terminal.
The Basic iPECS-50B has 2 x ISDN2 circuits (4 Channels) this can be increased to 4 x ISDN2

circuits (8 Channels) by the installation of a License (BRIU Lock Key). If the Lock Key is installed when the system is initialized it will have 8 channels available.
If the Lock key is installed to increase the number of channels at some time after installation, the BRI gateway will have to be deleted in the maintenance menu and then Re-Registered with “MAX Port 8” using the Registration Table (PGM235).

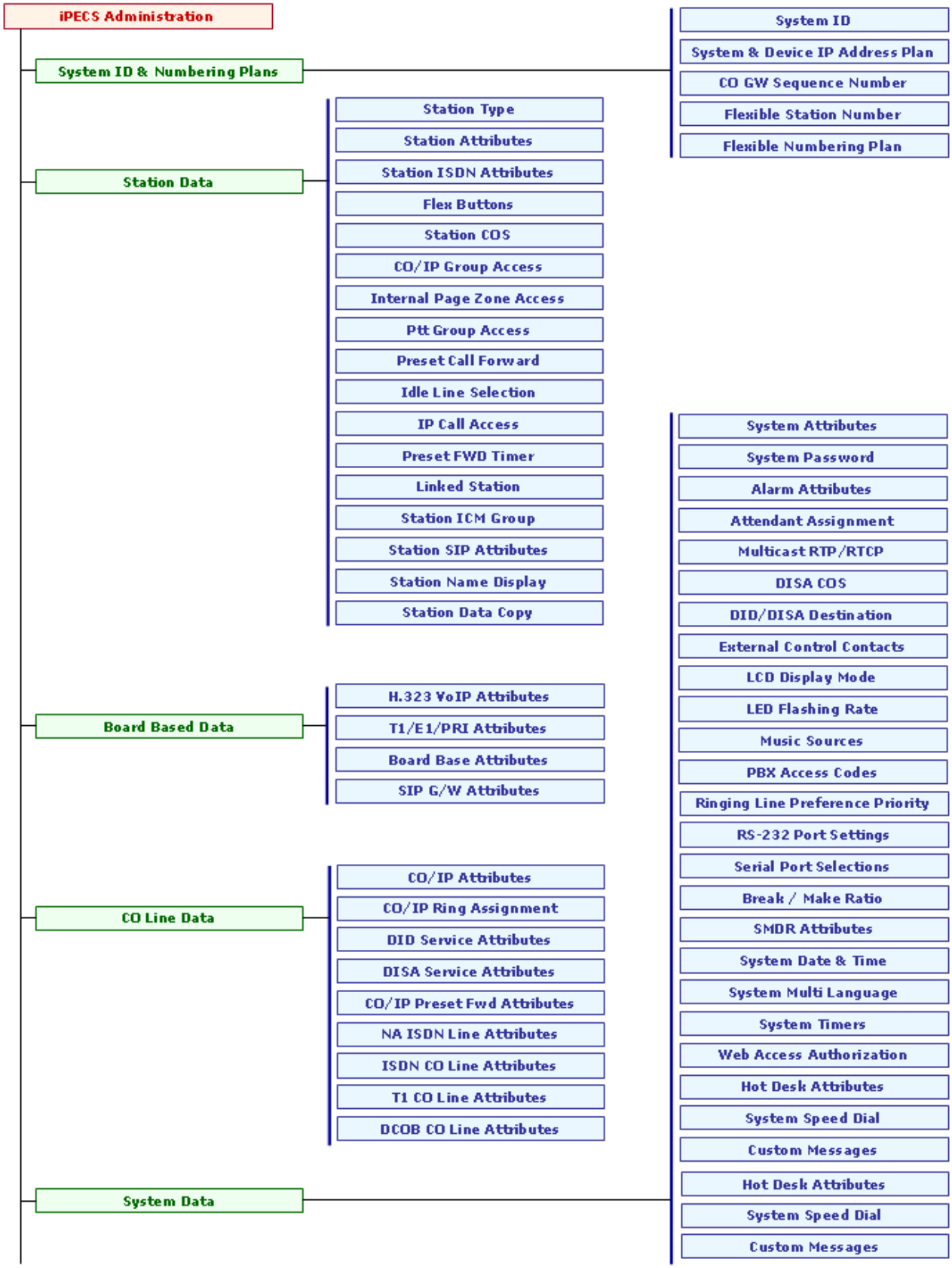
1.5 VIRTUAL LANS

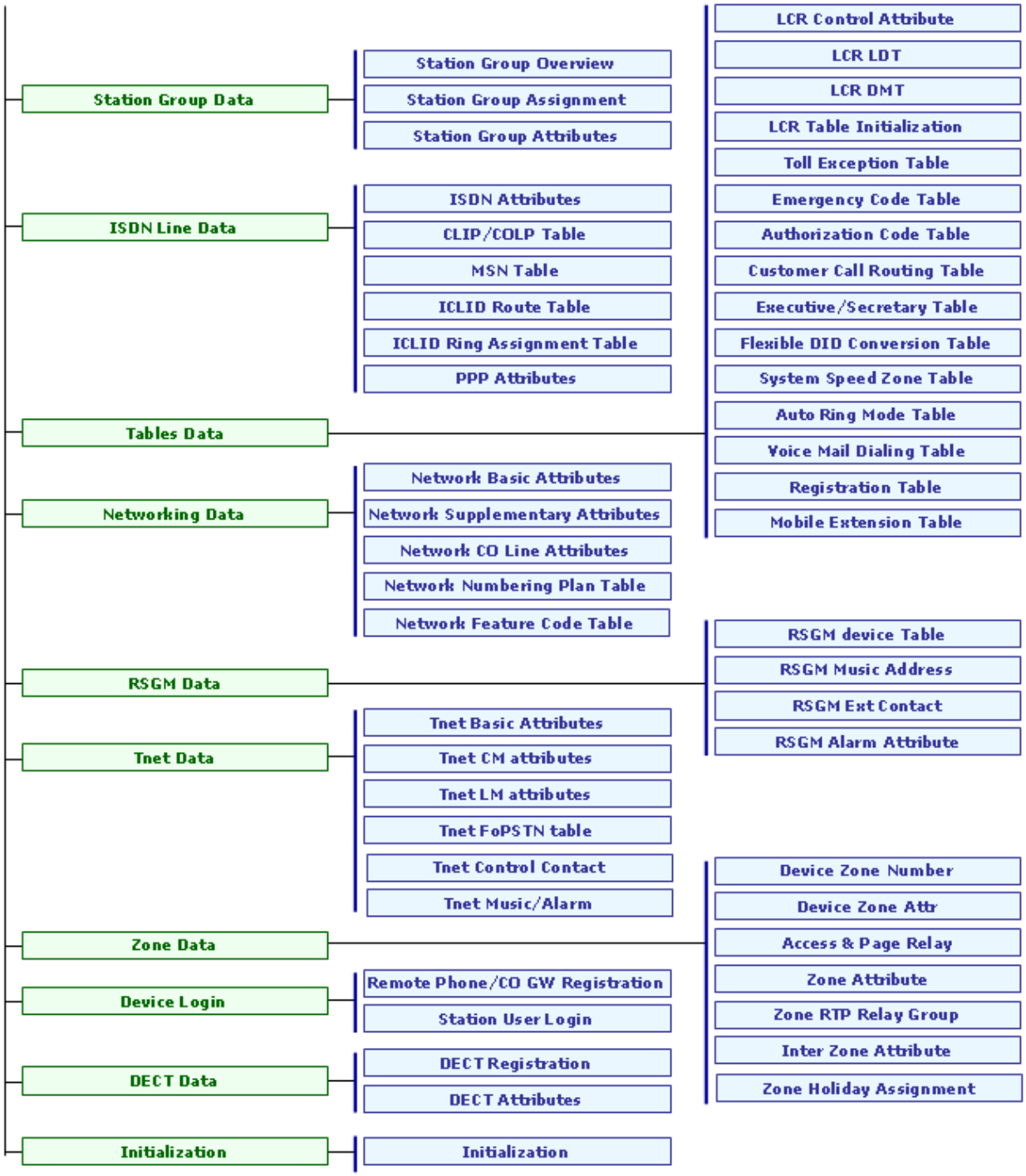
iPECS devices (modules and terminals) support the IEEE 802.1p/Q standard for Virtual LAN operation. The VLAN priority and ID (tag) are assigned in the Web Admin of each module and terminal. For the MFIM, assign VLAN parameters in maintenance through the RS-232 port or a TCP/IP connection with the following commands:

maint> vlanset pri [value] *// priority from 0 to 7*
maint> vlanset id [value] *// vlan id value* (0 to 4094)
maint> vlan start *// start.*

1.6 PROGRAM MENU STRUCTURE

Database Administration is accomplished by entering “**PROGRAM CODES”** from the dial pad of an iPECS phone or selecting an item from the Navigation pane in iPECS Web Admin pages. Items in the Navigation pane roughly correlate with the Program codes however; certain items can only be assigned via the Web interface. Data items are organized as a group with a common affect, i.e. station, system, numbering plan, etc. Items may be further grouped forming a multi-layered menu structure as shown in Figure 1.6-1.


iPECS Administration
System ID & Numbering Plans
System ID
System & Device IP Address Plan
CO GW Sequence Number
Flexible Station Number
Flexible Numbering Plan
Station Data
Station Type
Station Attributes
Station ISDN Attributes
Flex Buttons
Station COS
CO/IP Group Access
Internal Page Zone Access
Ptt Group Access
Preset Call Forward
Idle Line Selection
IP Call Access
Preset FWD Timer
Linked Station
Station ICM Group
Station SIP Attributes
Station Name Display
Station Data Copy
Board Based Data
H.323 VoIP Attributes
T1/E1/PRI Attributes
Board Base Attributes
SIP G/W Attributes
CO Line Data
CO/IP Attributes
CO/IP Ring Assignment
DID Service Attributes
DISA Service Attributes
CO/IP Preset Fwd Attributes
NA ISDN Line Attributes
ISDN CO Line Attributes
T1 CO Line Attributes
DCOB CO Line Attributes
System Data
System Attributes
System Password
Alarm Attributes
Attendant Assignment
Multicast RTP/RTCP
DISA COS
DID/DISA Destination
External Control Contacts
LCD Display Mode
LED Flashing Rate
Music Sources
PBX Access Codes
Ringing Line Preference Priority
RS-232 Port Settings
Serial Port Selections
Break / Make Ratio
SMDR Attributes
System Date & Time
System Multi Language
System Timers
Web Access Authorization
Hot Desk Attributes
System Speed Dial
Custom Messages
Hot Desk Attributes
System Speed Dial
Custom Messages


Station Group Data
Station Group Overview
Station Group Assignment
Station Group Attributes
ISDN Line Data
ISDN Attributes
CLIP/COLP Table
MSN Table
ICLID Route Table
ICLID Ring Assignment Table
PPP Attributes
Tables Data
LCR Control Attribute
LCR LDT
LCR DMT
LCR Table Initialization
Toll Exception Table
Emergency Code Table
Authorization Code Table
Customer Call Routing Table
Executive/Secretary Table
Flexible DID Conversion Table
System Speed Zone Table
Auto Ring Mode Table
Voice Mail Dialing Table
Registration Table
Mobile Extension Table
Networking Data
Network Basic Attributes
Network Supplementary Attributes
Network CO Line Attributes
Network Numbering Plan Table
Network Feature Code Table
RSGM Data
RSGM device Table
RSGM Music Address
RSGM Ext Contact
RSGM Alarm Attribute
Tnet Data
Tnet Basic Attributes
Tnet CM attributes
Tnet LM attributes
Tnet FoPSTN table
Tnet Control Contact
Tnet Music/Alarm
Zone Data
Device Zone Number
Device Zone Attr
Access & Page Relay
Zone Attribute
Zone RTP Relay Group
Inter Zone Attribute
Zone Holiday Assignment
Device Login
Remote Phone/CO GW Registration
Station User Login
DECT Data
DECT Registration
DECT Attributes
Initialization
Initialization

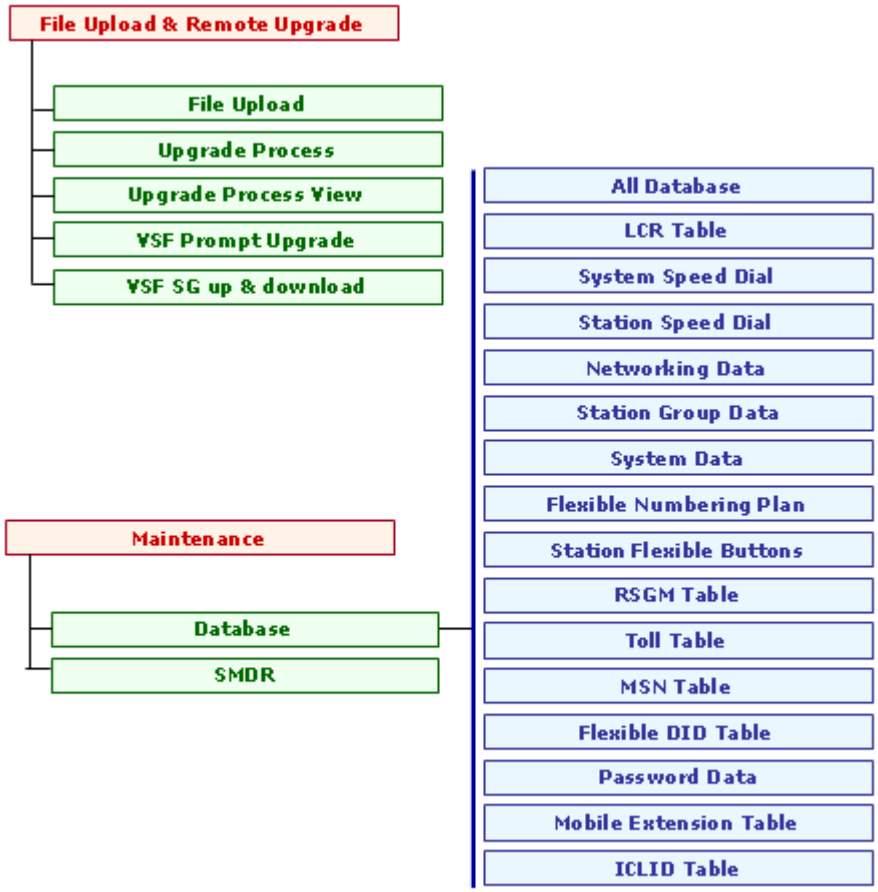


Figure 1.6-1 Admin Menu Structure

2. STATION ADMIN PROGRAMMING

2.1 GENERAL

2.1.1 LCD & Button Functions

While in the **PROGRAM MODE**, the Liquid Crystal Display (LCD) and Flex button LEDs of an Admin Station are used to guide and indicate status of the feature. The dial-pad is most often used to enter data after selecting a data item using the Flex buttons. In some cases, pressing a Flex button will toggle the entry with the Flex button LED indicating the status (ON/OFF).

For **PROGRAM CODES** with multiple Flex button selections, the volume controls (**[VOL UP]** and **[VOL DOWN]** buttons) may be used to select the next or previous item. The **[SPEED]** button is generally employed as a delete button to erase existing entries however, where noted, it may be used to confirm a range input. Pressing the **[CONF]** button returns to the 1st step of the data entry procedure for the **PROGRAM CODE** without storing unsaved entries.

The **[SAVE]** button is used to store data after entry. If there are no conflicts in the entered data, confirmation tone will be received and the data stored. If a conflict exists, error tone is provided and newly entered data are not saved. Generally, corrected data may be entered and stored without restarting the entry procedure from the 1st step.

2.1.2 Alphanumeric Data Entries

In some cases, an alphanumeric entry is required. Two (2) dial-pad digits represent each character of an alphanumeric entry, as shown in Table 2.1.2-1 below. Use the Table to determine the two digits that must be entered from the dial-pad for each character.

Table 2.1.2-1 ALPHANUMERIC DIAL-PAD ENTRIES

Q – 11 Z – 12 . – 13 1 – 10	A - 21 B - 22 C - 23 2 - 20	D - 31 E - 32 F - 33 3 - 30
G – 41 H - 42 I - 43 4 - 40	J - 51 K - 52 L - 53 5 - 50	M - 61 N - 62 O - 63 6 - 60
P - 71 R - 72 S - 73 Q - 7* 7 - 70	T - 81 U - 82 V - 83 8 - 80	W - 91 X - 92 Y - 93 Z - 9# 9 - 90
Blank - *1 : - *2 , - *3	0-00	#

2.1.3 Required Data Entries

During initialization a default database is established, refer to section 1.3 and Appendix A~D. However, there are several data entries, which MUST be completed to assure proper operation of the system. The system employs the Country Code, refer to section 2.3.1, to establish tone and gain plans specific to the country. Also, the MFIM IP address, sub-net mask and Default Gateway (Router) IP address, refer to section 2.3.2.1, must be assigned for proper external IP call operation and WAN access as well as remote Web Admin access.

2.2 DATA ENTRY MODE

All data entry is accomplished from an Admin Station or station assigned for data entry (Station Attributes III **PGM CODE** 113, Flex button 1). After initialization and registration, any iPECS Phone may access the system database. In addition, as default, there is no Station Admin password defined. To enter the **PROGRAM MODE**, from the Admin Station follow the procedure below. In the left column of the chart are the LCD displays and in the right column are step-by-step instructions to modify database items.

PROCEDURE:	
STATION 100 (T) **04 SEP 01 02:49 PM**	Press the **[PGM]** button. Dial '*' and '#'.
ENTER ADMIN PASSWORD	Enter the Admin password. Confirmation tone is received.
ADMIN PROGRAM START	
ENTER PGM NUMBER	To select a program, use the instructions in the following sections, starting with "Press the **[PGM]** button" and dial the specified Admin **PROGRAM CODE**.

2.3 PROCEDURES FOR DATA ENTRY

The following sections provide specific instructions for entering data from the Admin Station once in the **PROGRAM MODE**. Each section provides descriptive information, step-by-step instructions and Tables for determining appropriate entries.

2.3.1 SYSTEM ID – PGM CODE 100–

Under System ID, the country is identified using the international dial codes (COUNTRY CODE). If the Country code requires changing, the system must be initialized to restructure memory and create the country specific defaults, gain, frequencies and other system characteristics specific to the country and regional regulatory requirements.

To change the Country Code:

set the MFIM switch 3 and 4 to the On position,
follow the procedure below to modify the Country code
initialize the MFIM as outlined in the Initialization section.

After initialization, reset switches as needed, switch 4 initializes database on reset and switch 3 enables automatic registrations. Generally, switch 4 is set to Off and switch 3 is left On until after initial installation of all Modules and terminals.

A twenty-three (23) character SITE NAME and the local Area Code are also defined in this program. The SITE NAME is primarily useful for the installer/programmer as a reference to the customer.

In addition, under this program the system can be programmed to select one of eight (8) Flexible Number Plans, refer to Appendix B. Individual items from the selected Numbering Plan can be changed under Flexible Numbering Plan part A to D – **PGM CODES** 106 to 109- in section 2.3.2.5.

PROCEDURE:	
SYSTEM ID **PRESS FLEX KEY (1-5)**	1. Press the **[PGM]** button and dial 100.
See Table 2.3.1-1 **DISPLAY**	Select the desired Flex button (1~5), refer to Table 2.3.1-1. For COUNTRY CODE, refer to Table 2.3.1-2 for appropriate entries.
	Use the dial-pad to enter desired System Id data. For System Reset, button 5, press **[SAVE]** to reset the System Id to default.
	To store the System Id data press the **[SAVE]** button.

Table 2.3.1-1 SYSTEM ID (PGM 100)

Btn	DISPLAY	REMARK	RANGE	DEFAULT
1	COUNTRY CODE 1	Refer to Table 2.3.1-2 below. Note system must be re-initialized if changed.	4 digits	1
2	CUSTOMER SITE NAME	Refer to Table 2.1.2-1 for alphanumeric dial-pad entries.	23 character	
3	MY AREA CODE	Enter the area code of the installed site.	6 digits	
4	NUMBERING PLAN(1-8)	Refer to Appendix B for details of Numbering Plan selection.	1-8	1
5	SYSTEM ID SYSTEM RESET	Returns the System Id to default.		

Table 2.3.1-2 COUNTRY CODES

COUNTRY	CODE	COUNTRY	CODE	COUNTRY	CODE
America	1	Argentina	54	Australia	61
Bahrain	973	Bangladesh	880	Belgium	32
Bolivia	591	Brazil	55	Brunei	673
Burma	95	Cameroon	237	Chile	56
China (Taiwan)	886	CIS	7	Colombia	57
Costa Rica	506	Cyprus	357	Czech	42
Denmark	45	Ecuador	593	Egypt	20
El Salvador	503	Ethiopia	251	Fiji	679
Finland	358	France	33	Gabon	241
Germany	49	Ghana	233	Greece	30
Guam	671	Guatemala	502	Guyana	592
Haiti	509	Honduras	504	Hong Kong	852
India	91	Indonesia	62	Iran	98
Iraq	964	Ireland	353	Israel	972
Italy	39	Japan	81	Jordan	962
Kenya	254	Korea	82	Kuwait	965
Liberia	231	Libya	218	Malta	356
Luxembourg	352	Malaysia	60	Morocco	212
Mexico	52	Monaco	377	Nigeria	234
Netherlands	31	New Zealand	64	Pakistan	92
Norway	47	Oman	968	Paraguay	595
Panama	507	P.N.G	675	Portugal	351
Peru	51	Philippines	63	Senegal	221
Qatar	974	Saudi Arabia	966	Spain	34
Singapore	65	South Africa	27	Sweden	46
Sri Lanka	94	Swaziland	268	Tunisia	216
Switzerland	41	Thailand	66	United Kingdom	44
Turkey	90	U.A.E.	971	Y.A.R.	967
Uruguay	598	Venezuela	58		

2.3.2 NUMBERING PLANS DATA – PGM CODES 102 to 109–

2.3.2.1 System IP Address Plan –PGM Code 102–

The System IP Address Plan sets several IP addresses including the MFIM IP address required for external VoIP calls, the IP address for the router, and the system's internal private IP address Plan. Note that the MFIM and Router addresses and sub-net mask must be a routable IP address for access to an external VoIP network, remote access by a gateway Module or terminal and remote Web access. The VOIM (Voice over IP gateway Module) must also have a routable IP address for access to/from an external VoIP network or remote user.

When Automatic IP Assignment, button 7, is enabled, the system will assign IP addresses to each local gateway Module and terminal using the assigned System IP address range. These addresses are used for communications between the system and other Modules and terminals.

The MFIM may be installed on a LAN that is segmented by two separate private IP address schemes. This segmenting technique is often used to separate voice and data devices. However, with this segmenting technique, the MFIM would normally treat the segmented gateway Modules and Terminals such as iPECS SoftPhones, as remote devices, using valuable WAN bandwidth.

Assigning the MFIM an IP address from the second segment (“Second Sys IP address”) permits the MFIM to communicate with the devices directly over the LAN.

iPECS can be installed behind a NAPT server, if the NAPT server provides fixed address translation and port forwarding to the system. In this case, the system will employ the “Firewall IP address”, button 10, as the fixed public IP address for communication with remote devices. This address must be assigned as the MFIM address in the remote device.

In some situations, specifically when multiple iPECS systems are installed on the same LAN, it may be advantageous to register devices employing MAC addresses in place of the “plug & play” mechanism using the MFIM registration DIP-switch. The system allows a range of MAC addresses to be entered allowing devices with a MAC address in the range to register with the iPECS regardless of the Registration switch position. For convenience, two ranges can be defined in the database.

PROCEDURE:	
SYSTEM IP ADDRESS PLAN **PRESS FLEX KEY (1-18)**	1. Press the **[PGM]** button and dial 102.
See Table 2.3.2-1 **DISPLAY**	Select the desired button 1~18, refer to Table 2.3.2-1.
	Use the dial-pad to enter desired IP addresses. Use an “*” to enter a dot (“.”)
	Press the **[SAVE]** button to store IP address entries.

Table 2.3.2-1 SYSTEM IP ADDRESS PLAN (PGM 102)

Btn	DISPLAY	DEFAULT	REMARK
1	**MFIM/E IP ADDRESS** **---.---.---.---**	10.10.10.2	Public IP Address required for remote user and external VoIP network access. IPv4 format.
2	**MFIM/E SUB NET MASK** **255.255.255.000**	255.255.0.0	
3	**ROUTER IP ADDRESS** **---.---.---.---**	10.10.10.1	IP Address of router for external network (WAN/IP) access. Required for shared voice and data LAN, external VoIP and remote Web access.
4	**SYSTEM START IP ADDRESS** **10.10.10.10**	10.10.10.10	Start of range for private IP addresses assigned by the system to Modules/Terminals.
5	**SYSTEM END IP ADDRESS** **10.10.10.254**	10.10.254.254	End of range for private IP addresses assigned by the system to Modules/Terminals.
6	**SYSTEM SUB NET MASK** **255.255.255.000**	255.255.0.0	
7	**AUTOMATIC IP ASSIGN** **(1:ON/0:OFF): ON**	ON	The system will automatically assign IP addresses to modules and terminals (ON) or, when OFF, IP addresses are assigned manually in **PGM CODE** 103 Device IP Address Plan.

8	SECOND SYS IP ADDRESS 0.0.0.0	0.0.0.0	When devices are located on a different private address on the same net, enter the MFIM IP address for the second LAN.
9	SECOND SYS SUB NET MASK 255.255.0 .0	255.255.0.0	
10	FIREWALL IP ADDRESS 0 .0 .0 .0	0.0.0.0	When the system is installed behind a NAPT server, the fixed IP Address provided by the NAPT server must be assigned in this field. Also, use this IP address for the MFIM address in remote devices.
11	FIRST START MAC ADDR 000000000000	00.00.00.00.00.00	A range of MAC addresses can be entered to register devices regardless of the 3rd DIP-switch. This entry is the start address of the first range.
12	FIRST END MAC ADDR 000000000000	00.00.00.00.00.00	A range of MAC addresses can be entered to register devices regardless of the 3rd DIP-switch. This entry is the end address of the first range.
13	SECOND START MAC ADDR 000000000000	00.00.00.00.00.00	A range of MAC addresses can be entered to register devices regardless of the 3rd DIP-switch. This entry is the start address of the second range.
14	SECOND END MAC ADDR 000000000000	00.00.00.00.00.00	A range of MAC addresses can be entered to register devices regardless of the 3rd-DIP switch. This entry is the end address of the second range.
15	SYSTEM IP ADDRESS PLAN SYSTEM RESET		Returns System IP Address Plan to default values.
16	MFIM/E LAN2 M IP ADDR	0.0.0.0	When redundancy is to be supported for the MFIM, the master and slave are connected via the LAN2 port. All 8 wires in the cable must be terminated to the RJ45. The master IP address can be assigned here. When the direct connection mode is employed for redundancy, the field is ignored.
17	MFIM/E LAN2 S IP ADDR	0.0.0.0	When redundancy is to be supported for the MFIM, the master and slave are connected via the LAN2 port. All 8 wires in the cable must be terminated to the RJ45. The slaver IP address can be assigned here. When the direct connection mode is employed for redundancy, the field is ignored.
18	MFIM DNS IP ADDR	0.0.0.0	IP Address of Domain Name Server, which iPECS will use to resolve urls to an IP address. The DNS provides the resolution after receiving the name from iPECS.

2.3.2.2 Device IP Address Plan -PGM Code 103-

As gateway Modules and terminals register to the iPECS, a gateway number is assigned, which indicates the order of registration. Also, based on the type of device (CO/IP gateway, Terminal, MISC/VSF/WTIM gateway) the system assigns a logical Sequence Number. Thus, Sequence Numbers for CO/VOIM gateway Modules, Terminals and the MISC/VSF gateway are independently assigned based on the type of gateway. These Sequence Numbers are employed to provide a relationship between the physical MAC address and the logical port numbers of the device.

For the RSGM, the CO Line port is assigned a CO/IP gateway Sequence Number and the iPECS Phone and SLT port are assigned Terminal Sequence Numbers.

The system may assign a default private IP address to each Sequence Number. If desired, this program may be used to modify the assigned IP address for each gateway Module and iPECS Phone.

Each local gateway Module and terminal can be assigned for “Direct Send”. With Direct Send enabled, the system will employ the Ethernet MAC address, layer 2 switching to eliminate the need for IP traffic overhead, reducing overall LAN traffic.

The system normally employs IP multi-cast protocol to respond to a registration request from a gateway Module or terminal. When the device is separated from the system by a router, the system must use the IP uni-cast protocol. This is established by the “Local Device” assignment. When disabled (Off), the system will send an IP uni-cast message to the device in response to a registration request.

PROCEDURE:	
DEVICE IP ADDRESS PLAN **PRESS FLEX KEY (1-6)**	1. Press the **[PGM]** button and dial 103.
See Table 2.3.2.2-1 **DISPLAY**	Select the desired Flex button. Button 1: CO & VOIP gateway Modules Button 2: Stations Button 3: MISC Button 4: VSF & VMIM Button 5: MCIM Button 6: SYSTEM RESET Button 7: WTIM
	Use the **[VOL UP]** and **[VOL DOWN]** buttons to see next/previous IP Address. Refer to Table 2.3.2.2-1 for display information.
	Press Flex 1~6 to select the Sub-menu item desired. See Table 2.3.2.2-1. Button 1: IP address Button 2: MAC address Button 3: Direct Send Button 4: Local Device Button 5: CPU Type Button 6: Device (Board) ID
	Use the dial-pad to enter desired data. For IP and MAC addresses, an “*” is used to enter a dot (“.”)
	Press the **[SAVE]** button to store the data entry.

Table 2.3.2.2-1 MODULE & STATION ADDRESS PLAN (PGM 103)

Btn	DISPLAY	FEATURE	DEFAULT
1	001-001 :0090A00175A2 VOIP 1 :10 .10 .10 .2	LCD shows: Line 1 Sequence Number, 2 or 3 digits MAC Address, 12 digits Line 2 Module Type, 4 characters First Logical port number IP Address, 7~12 digits	CO & VoIP Gateway Module IP address set sequentially, from the range in PGM 102.
1-1	SET IP ADDRESS VOIP 1 : 10.10.10.2	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
1-2	SET MAC ADDRESS 001-001 :0090A00175A2	Use Flex button 2 to enter the device's MAC address in the system memory.	None
1-3	DIRECT SEND (MAC) (1:ON/0:OFF): ON	Use Flex button 3 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	ON
1-4	LOCAL DEVICE (1:ON/0:OFF): ON	Use Flex button 4 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM.	ON
1-5	CPU TYPE MS828	Flex button 5 displays the type of CPU employed in the device.	
1-6	DEVICE(BOARD) ID GW-VOIP	Flex button 6 displays the GW type designation.	
2	001-004 : 00405A0175A3 KTU 100 :10.10.10.11	LCD shows: Line 1 Sequence Number, 3 digits MAC Address, 12 digits Line 2 Station Type, 3 characters Station Number, 2~4 digits IP Address, 7~12 digits	Station IP address set sequentially, from the range in PGM 102.
2-1	SET IP ADDRESS KTU 100 :10.10.10.11	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
2-2	SET MAC ADDRESS 001-002 :00405A0175A3	Use Flex 2 button to enter the device's MAC address into system memory.	None
2-3	DIRECT SEND (MAC) (1:ON / 0 :OFF): ON	Use Flex button 3 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	ON
2-4	LOCAL DEVICE (1:ON / 0 :OFF): ON	Use Flex button 4 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM.	ON
2-5	CPU TYPE T2	Flex button 5 displays the type of CPU employed in the device.	
2-6	DEVICE(BOARD) ID LIP-24D	Flex button 6 displays the terminal type designation.	
3	001-002 :00405A017615 MISC :10.10.10.10	LCD shows: Line 1 Sequence Number, 2 digits MAC Address, 12 digits Line 2 "MISC" IP Address, 7~12 digits	IP address of Misc. functions in the system's MFIM set automatically,

Btn	DISPLAY	FEATURE	DEFAULT
3-1	SET IP ADDRESS MISC :10.10.10.10	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
3-2	SET MAC ADDRESS 001-003 : 00405A017615	Use Flex button 2 to enter the device's MAC address into system memory.	None
3-3	DIRECT SEND (MAC) (1:ON / 0 :OFF): ON	Use Flex button 3 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	ON
3-4	LOCAL DEVICE (1:ON / 0 :OFF): ON	Use Flex button 4 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM.	ON
3-5	CPU TYPE T2	Flex button 5 displays the type of CPU employed in the device.	
3-6	DEVICE(BOARD) ID GW-MISC	Flex button 6 displays the MISC type designation.	
4	001-002 :00405A017635 VSF :10.10.10.10	LCD shows: Line 1 Sequence Number, 2 digits MAC Address, 12 digits Line 2 "VSF" or "VMIM" IP Address, 7~12 digits	IP address of Misc. & VSF functions in the system's MFIM set automatically.
4-1	SET IP ADDRESS VSF :10.10.10.10	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
4-2	SET MAC ADDRESS 001-003 : 00405A017615	Use Flex button 2 to enter the device's MAC address into system memory.	None
4-3	DIRECT SEND (MAC) (1:ON / 0 :OFF): ON	Use Flex button 3 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	ON
4-4	LOCAL DEVICE (1:ON / 0 :OFF): ON	Use Flex button 4 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM.	ON
4-5	CPU TYPE T2	Flex button 5 displays the type of CPU employed in the device.	
4-6	DEVICE(BOARD) ID GW-MISC	Flex button 6 displays the type designation, VSF or VMIM.	
5	001-003 : 00405A017666 MCIM : 10:10:10:12	LCD shows: Line 1 Sequence Number, 2 digits MAC Address, 12 digits Line 2 "VSF" or "VMIM" IP Address, 7~12 digits	MCIM Gateway Module IP address set sequentially, from the range in PGM 102.
5-1	SET IP ADDRESS MCIM :10.10.10.12	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
5-2	SET MAC ADDRESS 001-003 : 00405A017666	Use Flex button 2 to enter the device's MAC address into system memory.	None

Btn	DISPLAY	FEATURE	DEFAULT
5-3	DIRECT SEND (MAC) (1:ON / 0 :OFF): ON	Use Flex button 3 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	ON
5-4	LOCAL DEVICE (1:ON / 0 :OFF): ON	Use Flex button 4 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM.	ON
5-5	CPU TYPE T2	Flex button 5 displays the type of CPU employed in the device.	
5-6	DEVICE(BOARD) ID GW-MCIM	Flex button 6 displays the type designation, MCIM.	
6	DEVICE IP ADDRESS PLAN SYSTEM RESET	If the **[SAVE]** button is pressed, the system will reset and restart.	
7	001-015 : 00405A142C67 WTI4 : 10:10:10:14	LCD shows: Line 1 Sequence Number, 2 digits MAC Address, 12 digits Line 2 "WTI4 " or "WTI8" IP Address, 7~12 digits	WTIM Gateway Module IP address set sequentially, from the range in PGM 102.
7-1	SET IP ADDRESS WTI4 :10.10.10.14	Use Flex button 1 to set the device's IP address in IP v4 format.	10.10.10.10~254
7-2	SET MAC ADDRESS 001-015 : 00405A142C67	Use Flex button 2 to enter the device's MAC address into system memory.	None
7-3	ARP (0:ON/1:OFF): OFF	Use Flex button 3 to enable/disable ARP, ARP OFF enables Direct Send, which employs layer 2 switching to local devices.	OFF
7-4	REGISTRATION (0:UCAST/1:MCAST):MCAST	Use Flex button 4 to disable/enable Local Device Mode, which defines the device as on a common LAN with the MFIM. MCAST enables Local Device Mode	MCAST
7-5	CPU TYPE MS828	Flex button 5 displays the type of CPU employed in the device.	
7-6	DEVICE(BOARD) ID GW-WTIM4	Flex button 6 displays the type designation, WTIM4 or WTIM8,	

2.3.2.3 CO Gateway Sequence Number -PGM Code 104-

Each CO/IP gateway Module is assigned a Sequence Number for each Ethernet MAC address. The LGCM4, DID and BRIM each have two MAC addresses and thus are assigned two sequence numbers, Other gateway Modules and the system VOIP channels all have single MAC addresses and thus a single Sequence number is assigned. The system uses the Sequence Number to assign logical (software) port numbers. This Sequence Number relates the hardware and software port numbers for each gateway Module using the Modules MAC addresses. When employing a Main Cabinet, it may be desirable to have the logical and physical (RJ21X appearances) port numbers in agreement. This may be accomplished by assigning Cabinet slot numbers matching the appropriate Sequence Numbers. This also may be accomplished by proper installation

sequence of the gateway modules. Table 2.3.2.3-1 provides the analog CO Line and ISDN Line port numbers based on the physical RJ-21X terminations on the Main Cabinet back plane.

PROCEDURE:	
001 002 003 004 005 006 001 005 003 006 002 004	1. Press the **[PGM]** button and dial 104.
001 002 003 004 005 006 001 005 003 006 002 004	Press the Flex button (1~6) for the desired Sequence Number, use the **[VOL UP]** and **[VOL DOWN]** buttons for the next/previous set of six Sequence Numbers.
001 002 003 004 005 006 001 002 003 004 005 006	Using the dial pad, enter new slot numbers. Note slot numbers cannot be duplicated and duplicates will cause an error. The **[SPEED]** button may be used to erase the slot number associated with the selected Sequence Number.
	Press the **[SAVE]** button to store the new Slot data.

Table 2.3.2.3-1 RJ-21X TERMINATIONS

SLOT	CO LINE PORT
1	1 ~ 4
2	5 ~ 8
3	9 ~ 12
4	13 ~ 16
5	17 ~ 20
6	21~ 24
7	25 ~ 28
8	29 ~ 32

2.3.2.4 Flexible Station Numbering Plan -PGM Code 105-

As with gateway Modules, each iPECS Phone and SLT is assigned a Sequence Number during the registration process. The station Sequence Number is a 3-digit number starting at 001, which is incremented as each terminal device is registered. At registration, station numbers increment sequentially with the Sequence Number and are assigned starting at station 100 for Sequence Number 001. The Station Numbering Plan allows the station numbers to be two (2) to four (4) digits in length.

PROCEDURE:	
001 002 003 004 100 101 102 103	1. Press the **[PGM]** button and dial 105.
001 002 003 004 100 101 102 103	Use either of the two methods below to change the station number associated with a Sequence Number. Note pressing the **[SPEED]** button twice clears all station number assignments. The **[VOL UP]** & **[VOL DOWN]** buttons are used to view the next/previous 4 station Sequence Numbers

	Range entry: Using the dial-pad, enter a station number range (first & last station number). The two station numbers must be of the same length, 2~4 digits. The range assignment begins with the first station number shown by the LCD and continues to the end of the entered range.
	Single entry: 4.1 Press Flex button 1~4 to select the desired Sequence Number from the four shown by the LCD. 4.2 Dial new station number.
	Press the **[SAVE]** button to store the new station numbers.

2.3.2.5 Flexible Numbering Plan part A to D –PGM Codes 106 to 109–

Feature dial codes for the system can be assigned using the system's Flexible Numbering Plan. Feature codes should be one (1) to four (4) digits in length and must not conflict. For example, Feature dial codes 53 and 536 represent a conflict. The system will generate error tone and will not update the database. Table 2.3.2.5-1 to Table 2.3.2.5-4 below show the defaults for the 1st base Numbering Plan. Appendix B provides the default values for each of the eight base Numbering Plans, select the base Numbering Plan in **PGM CODE** 100.

PROCEDURE:	
FLEX NUMBERING PLAN A **PRESS FLEX KEY (01-24)**	1. Press the **[PGM]** button and dial: 106 for part A 107 for part B 108 for part C 109 for part D.
Refer to Table 2.3.2.5-1to -4 **DISPLAY**	Select the desired button (01~24); refer to Table 2.3.2.5-1 to Table 2.3.2.5-4 for **PROGRAM CODES** 106 to 109 respectively.
	Use the dial-pad to enter desired data. Where a range is required, input the first and last numbers in the range.
	Press the **[SAVE]** button to store the new Numbering Plan data.

Table 2.3.2.5-1 FLEXIBLE NUMBERING PLAN PART A (PGM 106)

Btn	DISPLAY	FEATURE	DEFAULT				
			iPECS-Micro	iPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
1	INT PAGE ZONES START& END:501-510	Internal Page Zone access dial codes.	501~510	501~510	501~535	501~535	301~400
2	INT ALL CALL ENTER NEW #:543	Internal All Call Page access dial code.	543	543	543	543	543

Btn	DISPLAY	FEATURE	DEFAULT				
			iPECS-Micro	iPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
3	MEET ME PAGE ENTER NEW #:544	Meet-Me-Page answer dial code.	544	544	544	544	544
4	EXT PAGE ZONE 1 ENTER NEW #:545	External Page Zone 1 access dial code. Not available in iPECS-Micro	n/a	545	545	545	545
5	EXT PAGE ZONE 2 ENTER NEW #:546	External Page Zone 2 access dial code. Not available in iPECS-50 and iPECS-Micro	n/a	546	546	546	546
6	EXT ALL CALL ENTER NEW #:548	External All Call Page access dial code. Not available in iPECS-Micro	n/a	548	548	548	548
7	ALL CALL PAGE ENTER NEW #:549	All Call Page access dial code.	549	549	549	549	549
8	SMDR ACT CODE ENTER ENTER NEW #:550	Dial code to signify the start of an SMDR Account Code.	550	550	550	550	550
9	FLASH CMD TO CO ENTER NEW #:551	Dial code to generate a Flash on the active CO Line.	551	551	551	551	551
10	SLT LAST SPD DIAL ENTER NEW #:552	SLT Last Number Redial feature access dial code.	552	552	552	552	552
11	DND ENTER NEW #:553	Dial code to activate Do-Not-Disturb.	553	553	553	553	553
12	CALL FWD ENTER NEW #:554	Dial code to activate Call Forward.	554	554	554	554	554
13	SPD DIAL PGM ENTER NEW #:555	Speed Dial programming access dial code for SLTs.	555	555	555	555	555
14	MSG WAIT ENABLE ENTER NEW #:556	Dial code to activate a Message Wait/Call Back.	556	556	556	556	556
15	MSG WAIT RETURN ENTER NEW #:557	Dial code to return a Message Wait/Call Back.	557	557	557	557	557
16	SPD DIAL ACCESS ENTER NEW #:558	SLT Speed Dial access code.	558	558	558	558	558
17	DND/FWD CANCEL ENTER NEW #:559	Dial code to cancel DND/FWD/MSG Wait.	559	559	559	559	559
18	CO SYS HOLD ENTER NEW #:560	Dial code to place a CO call on System Hold.	560	560	560	560	560

Btn	DISPLAY	FEATURE	DEFAULT				
			iPECS-Micro	iPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
19	SLT PGM MODE ENTER ENTER NEW #:561	User program mode entry dial code for SLTs.	561	561	561	561	561
20	ATTD UNAVAILABLE ENTER NEW #:562	Dial code to place attendant in the "unavailable" mode, attendant only.	562	562	562	562	562
21	ALARM RESET ENTER NEW #:565	Dial code to terminate Alarm contact signal.	565	565	565	565	565
22	GROUP CALL PICK-UP ENTER NEW #:566	Group Call Pick-up dial code.	566	566	566	566	566
23	UNIVERSAL NIGHT ANSWER ENTER NEW #:567	Universal Night Answer dial code.	567	567	567	567	567
24	ACCOUNT CODE WITH BIN ENTER NEW #:568	Dial code for entering an Account code.	568	568	568	568	568

Table 2.3.2.5-2 FLEXIBLE NUMBERING PLAN PART B (PGM 107)

Btn	DISPLAY	FEATURE	DEFAULT				
			iPECS-Micro	iPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
1	WALKING COS ENTER NEW #:569	Dial code to activate Walking Class-of-Service.	569	569	569	569	569
2	ACD AGENT ON/OFF DUTY ENTER NEW #:571	Dial code to toggle ACD Agent or Supervisor ON and OFF duty.	571	571	571	571	571
3	ACD SUPERVISOR LOGIN ENTER NEW #:572	Supervisor login dial code.	572	572	572	572	572
4	ACD SUPERVISOR LOGOUT ENTER NEW #:573	Supervisor logout dial code.	573	573	573	573	573
5	ACD HELP CODE ENTER NEW #:574	Agent dial code requesting Supervisor help, and Supervisor Help request Response code.	574	574	574	574	574
6	ACD CALLS IN QUEUE ENTER NEW #:575	Dial code to display calls in queue.	575	575	575	575	575
7	ACD SUPERVISOR STATUS ENTER NEW #:576	Dial code to display group status.	576	576	576	576	576
8	ACD SUPERVISOR MONITOR ENTER NEW #:577	Dial code to activate Supervisor monitor.	577	577	577	577	577

Btn	DISPLAY	FEATURE	DEFAULT				
			iPECS-Micro	iPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
9	ACD REROUTE QCALL ANS ENTER NEW #:578	Dial code to reroute call after answer.	578	578	578	578	578
10	ACD REROUTE QCALL NO AN ENTER NEW #:579	Dial code to reroute call prior to answer.	579	579	579	579	579
11	CAMP-ON ANSWER ENTER NEW #:600	Dial code to answer a Camped On call.	600	600	600	600	600
12	CALL PARK LOCATIONS START&END#:601-610	Dial code to place/retrieve a call in a Park location.	601~610	601~610	601~619	601~699	601~699
13	STA GRP PILOT NUMBER START&END #:620-659	Station group pilot numbers.	620~631	620~659	620~667	620~667	401~500
14	STA USER VSF FEATURES ENTER NEW #:66	VSF feature access dial code.	66	66	*66	*66	*66
15	CALL COVERAGE RING ENTER NEW #:67	Code for Call Coverage button.	67	67	67	67	76
16	DIRECT CALL PICK-UP ENTER NEW #:7	Dial code to activate Directed Call Pick-up.	7	7	7	7	*77
17	ACCESS CO GROUP FEAT START&END:801-820	Dial code to access a CO Line or IP channel from a CO/IP group.	801~820	801~820	801~872	801~872	n/a
18	ACCESS IND CO/IP FEAT START&END:88	Dial code to access a specific CO Line.	8801 ~8805	8801 ~8842	88001 ~ 88200	88001 ~ 88400	88001 ~ 88600
19	ACCESS HELD CO/IP FEAT ENTER NEW:8*	Dial code to access last held CO Line or IP channel from Hold.	8*	8*	8*	8*	8*
20	ACCESS HELD IND CO/IP ENTER NEW #:8#	Dial code to access a specific CO Line/IP channel from Hold.	8#	8#	8#	8#	8#
21	ACCESS CO IN 1ST CO GRP ENTER NEW #:9	Dial code to access the 1st available CO Line in any accessible group.	9	9	9	9	9
22	ATTENDANT CALL ENTER NEW #:0	Dial code to call an Attendant.	0	0	0	0	0
23	VM MSG WAIT ENABLE ENTER NEW #:*8	Dial code for external Voice mail to activate Message Wait indication.	*8	*8	*8	*8	*8
24	VM MSG WAIT CANCEL ENTER NEW #:*9	Dial code for external Voice Mail to deactivate Message Wait indications.	*9	*9	*9	*9	*9

Table 2.3.2.5-3 FLEXIBLE NUMBERING PLAN PART C (PGM 108)

Btn	DISPLAY	FEATURE	DEFAULT			
			IPECS-50 MFIM100	MFIM 300	MFIM 600	MFIM 1200
1	DOOR OPEN 1 ENTER NEW #:#*1	Dial code to activate Door 1 contact (open door 1)	#*1	#*1	#*1	#*1
2	DOOR OPEN 2 ENTER NEW #:#*2	Dial code to activate Door 2 contact (open door 2). Not available in iPECS-50.	#*2	#*2	#*2	#*2
3	DOOR OPEN 3 ENTER NEW #:#*3	Dial code to activate Door 3 contact (open door 3) MFIM300 & MFIM600 only.		#*3	#*3	#*3
4	DOOR OPEN 4 ENTER NEW #:#*4	Dial code to activate Door 4 contact (open door 4) MFIM300 & MFIM600 only.		#*4	#*4	#*4

Table 2.3.2.5-4 FLEXIBLE NUMBERING PLAN PART D (PGM 109)

Btn	DISPLAY	FEATURE	DEFAULT			
			iPECS-50/Micro MFIM100	MFIM 300	MFIM 600	MFIM 1200
1	MCID REQUEST ENTER NEW #:*0	Dial code to activate Malicious Call ID Request in ISDN Supplementary service. Not available in USA version.	*0	*0	*0	*0
2	AME FEATURE ENTER NEW #: 564	Dial code to assign an Answering Machine Emulation Flex button.	564	564	564	564
3	US-CONF TMR EXTENSION ENTER NEW #:##	Dial code to extend Unsupervised conference time.	##	##	##	##
4	PTT GROUP LOGIN/OUT ENTER NEW #:#0	Push-To-Talk group login and logout dial code. The station must have a PTT button for proper operation.	#0	#0	#0	#0
5	ACD AGENT P LOGIN ENTER NEW #:…	ACD Agent Primary Login code	581	581	581	581
6	ACD AGENT P LOGOUT ENTER NEW #:…	ACD Agent Primary Logout code	582	582	582	582
7	ACD AGENT S LOGIN ENTER NEW #:…	ACD Agent Secondary Login code	583	583	583	583
8	ACD AGENT S LOGOUT ENTER NEW #:…	ACD Agent Secondary Logout code	584	584	584	584
9	ACD AGENT WRAPUP END ENTER NEW #:…	ACD Agent wrap-up end code	585	585	585	585

Btn	DISPLAY	FEATURE	DEFAULT			
			iPECS-50/Micro MFIM100	MFIM 300	MFIM 600	MFIM 1200
10	TNET CM LOGIN/OUT ENTER NEW #:586	When Central Control networking (TNET) is employed, a station can be manually logged in or out of the Central system using this code.	586	586	586	586
11	ENTER INTO CONF-ROOM ENTER NEW #:59	Code for a station to enter a conference room.	59	59	59	59
12	ENTER INTO CONF-GROUP	Code to open a conference group.	68	68	68	68
13	STATION ICR	Code to activate Station ICR.	587	587	587	587
14	PICK UP GROUP PICK-UP	Pick Up Group Call Pick-up dial code.	588	588	588	588
15	EMERGENCY PAGE ENTER NEW #:*589	Code for emergency page	589	589	589	589
16	REMOTE MEX CONTROL ENTER NEW #:580	Code to control the mobile extension settings remotely	580	580	580	580
17	ALL GR AGENT ON/OFF DUTY ENTER NEW #:58*	Code to change the state of the Agent ON/Off duty in all hunt group	58*	58*	58*	58*

2.3.3 STATION DATA – PGM CODES 110-125-

2.3.3.1 Station Type -PGM Code 110-

Each station is assigned a type, which is used by the system to recognize the station's capabilities and default Flex button configuration. In addition, for the iPECS DSS/BLF Consoles, the associated station number is identified here. Note that the maximum of four (4) LIP-8012LSS DSS Consoles can be associated and connected to a station.

PROCEDURE:

STATION TYPE ASSIGN ENTER STA RANGE	1. Press the **[PGM]** button and dial 110.
100-110 F1:TY F2:ASC IPKTU	Use the dial-pad to enter a station range (Ex 100~110). For a single station, enter the same number twice; use this procedure for an iPECS DSS Console.
	Select Flex button 1, to set the station type and, for iPECS DSS Consoles (types 2~4), Flex button 2 assigns the associated station.

100-110 F1:TY F2:ASC **IPKTU**	Use the dial-pad to enter desired data: 4-1. For Flex button 1 (TYPE), enter the station TYPE; refer to or .
111-111 F1:TYPE F2 :ASC **DSS MAP2 : STA . . . .**	4-2. For Flex button 2 (Associated station), enter the number of the station used with the console. Flex button 2 is only available for iPECS DSS Consoles (Types 2~4), see Table 2.3.3.1-3 or Table 2.3.3.1-4 for default configurations.
	Press the **[SAVE]** button to store the data entries.

Table 2.3.3.1-1 STATION TYPE ASSIGNMENT (PGM 110)

(iPECS-Micro)

TYPE	DESCRIPTION
1	IP KEYSET
2	DSS MAP 1
3	SLT (DTMF)
4	SLT with MSG Wait Lamp for DTMF

Table 2.3.3.1-2 STATION TYPE ASSIGNMENT (PGM 110)

(MFIM100, iPECS-50)

TYPE	DESCRIPTION
1	IP KEYSET
2	DSS MAP 1
3	DSS MAP 2
4	DSS MAP 3
5	SLT (DTMF)
6	SLT with MSG Wait Lamp for DTMF

Table 2.3.3.1-3 STATION TYPE ASSIGNMENT (PGM 110)

(MFIM300 , MFIM600 & MFIM1200)

TYPE	DESCRIPTION
1	IP KEYSET
2	DSS MAP 1
3	DSS MAP 2
4	DSS MAP 3
5	DSS MAP 4
6	DSS MAP 5
7	DSS MAP 6
8	DSS MAP 7
9	DSS MAP 8
10	DSS MAP 9
11	SLT (DTMF)
12	SLT with MSG Wait Lamp (DTMF)

Table 2.3.3.1-2 IP CONSOLE BUTTON CONFIGURATION (PGM 110)

(iPECS-Micro)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	* First 12 Buttons: Button 1: ATD Override — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 iPECS-Micro Buttons 13~38: Station Ports 100~125 Buttons 39~48: unassigned

Table 2.3.3.1-3 IP CONSOLE BUTTON CONFIGURATION (PGM 110)

(MFIM100, iPECS-50)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	* First 12 Buttons: Button 1: ATD Override — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 MFIM100 & iPECS-50: Buttons 13~48: Station Ports 100~135
MAP 2	MFIM100: Buttons 1~34: Station Ports 136~169 (MFIM & MFIM100) Buttons 35~48: unassigned IPECS-50: Buttons 1~14: Station Ports 136~149 Buttons 15~48: unassigned
MAP 3	MFIM100 & iPECS-50: Buttons 1~42: CO Line 01~42 Buttons 43~48: unassigned.

Table 2.3.3.1-4 IP CONSOLE BUTTON CONFIGURATION (PGM 110)

(MFIM300 , MFIM600 & MFIM1200)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	Button 1: Intrusion — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 Buttons 13 ~ 48: Station Ports 100 ~ 135
MAP 2	Station Ports 136 ~ 183

MAP 3	Station Ports 184 ~ 231
MAP 4	Station Ports 232 ~ 279
MAP 5	Station Ports 280 ~ 327
MAP 6	CO Line 001 ~ 048
MAP 7	CO Line 049 ~ 096
MAP 8	CO Line 097 ~ 144
MAP 9	CO Line 145 ~ 192

2.3.3.2 Station Attributes – I to III -PGM Codes 111-113-

Station Attributes define features and functions available to the station. Generally, the entry will turn the feature ON (enable) or OFF (disable). Refer to Table 2.3.3.2-1 to Table 2.3.3.2-3 for a description of the features and the input required.

PROCEDURE:	
STATION ATT 1 **ENTER STA RANGE**	1. Press the **[PGM]** button and dial: 111 for Station Attributes I 112 for Station Attributes II 113 for Station Attributes III
100-110 STATION ATT 1 **PRESS FLEX_KEY (1-19)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
Refer to Table 2.3.3.2-1 to -3 **DISPLAY**	Press the desired Flex button; refer to Table 2.3.3.2-1 to Table 2.3.3.2-3.
	Use the dial-pad to enter desired data for the attribute setting, refer to Table 2.3.3.2-1 to Table 2.3.3.2-3.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.2-1 STATION ATTRIBUTES I (PGM 111)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100-110 AUTO SPKR (1:ON/0:OFF) : ON	Enables **[SPEAKER]** activation when a CO/IP, DSS or other feature button is pressed, no need to lift handset.	0: OFF 1: ON	ON
2	100-110 CALL FWD (1:ON/0:OFF) : OFF	Enables Call Forward activation by the station.	0: OFF 1: ON	OFF
3	100-110 DND (1:ON/0:OFF) : OFF	Enables DND activation by the station.	0: OFF 1: ON	OFF
4	100-110 DATA SECURITY (1:ON/0:OFF) : OFF	Disables override and camp-on tones to the station when busy.	0: OFF 1: ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
5	100-110 HOWLING TONE (1:ON/0:OFF) : OFF	Permits Howler tone to be sent to a SLT when left off-hook.	0: OFF 1: ON	ON
6	100-110 NO TCH ANS (1:ON/0:OFF) : OFF	Enables No-touch answer; this will automatically connect transferred calls to the station's speakerphone.	0: OFF 1: ON	OFF
7	100-110 PAGE ACCESS (1:ON/0:OFF) : OFF	Allows station to access paging.	0: OFF 1: ON	OFF
8	100-110 HEADSET RING (1:S/2:H/3:BOTH) : SPKR	This item selects device to receive incoming ring signals, Speaker, Headset or Both.	1: Speaker 2: Headset 3: Both	SPKR
9	100-110 SPKR/HEAD (1:SPKR/0:HEAD): SPKR	Selects Speakerphone mode or Headset mode	1: Speaker 0: Headset	SPKR
10	100-110 LCD DISP LED (1:RING/0:MWI): MWI	The LCD LED, upper left of LCD, may be used for Intercom Call ring Indication or Message Wait Indication.	1:Ring 0:MWI	MWI
11	100-110 LOOP LCR ACCT (1:ON/0:OFF) : OFF	Station based LOOP LCR authorization; this is used for LOOP LCR operation.	0: OFF 1: ON	OFF
12	100-110 CALL COVERAGE (1:ON/0:OFF) : OFF	The Call Coverage feature permits an iPECS Phone user to receive ring and answer calls to other stations.	0: OFF 1: ON	OFF
13	100-110 CALL COVERAGE DELAY RING: 0	When a covered station rings, the **{CALL COVERAGE}** button LED will flash at the covering station and will receive ring (immediate or delayed, 0 to 9 ring cycles).	0~9	0
14	100-110 OFFNET FWD (1:DIS/0:EN):ENABLE	A station must be allowed Off Net Fwd to forward external incoming calls outside the system or otherwise establish a CO-to-CO connection (Unsupervised Conference). (Except USA version)	0:Enable 1:Disable	0
15	100-110 FORCED ICM (1:ON/0:OFF) : OFF	When placing an intercom call, a user can change the ICM signaling mode, Tone Ring to Hands free answer mode or HF Answer to Tone Ring.	0: OFF 1: ON	OFF
16	100-110 ACT PTT GRP ACTIVE PTT GROUP: 0	A station can be assigned to a PTT group and the group enabled so the station can place and receive PTT announcements for the group.	0~9,	0
17	100-110 ICM GROUP (01-15): 01	Assigns station to an ICM Tenancy Group, refer to **PGM CODE** 125.	1~15	1
18	100-100 VSF/VMIM GW GW SLOT SEQ: 29	Assigns the VSF or VMIM where messages for the station are stored.	Seq no	

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
19	100-100 SIP UID TBL (00-70) : 000	Index to SIP User ID table, **PGM CODE** 126, for the station. Note PGM 126 is accessible by Web only.	iPECS-Micro 0-26 IPECS-50 0- 50 MFIM100 0-70 MFIM300 0~300 MFIM600 0~600 MFIM1200 0~1200	
20	100-100 CAMP ON TONE (1:ON/0:OFF) : ON	Permits camp on tone to be sent to a station when the station receives camp-on request.	0: OFF 1: ON	ON
21	100-110 SERIAL DSS (1:EN/0:DIS):ENABLE	Assigns Serial DSS usage authority.	0:Disable 1:Enable	1
22	100-100 DLTN (00-10) DIAL TONE (00)	Each station can choose one of eleven dial tone sources	00: dial tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0
23	100-100 RBTN (00-10) RING BACK TONE (00)	Each station can choose one of eleven ring back tone sources	00: ring back tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0
24	100-100 ATTACH MSG (1:ON/0:OFF) : ON	When e-mail notification of a new VSF/VMIM message is enabled, (**PGM** 236-btn 7) the e-mail may include the voice mail as a wav file attachment. UMS mail server IP (**PGM** 113-btn18) & UMS Mail Address(**PGM** 113-btn19) are required for proper operation.	0: OFF 1: ON	ON

Table 2.3.3.2-2 STATION ATTRIBUTES II (PGM 112)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100-110 CALL TIME TN (1:ON/0:OFF) : OFF	A tone can be sent periodically indicating the elapsed time of an outgoing CO/IP call. The Elapsed Call Timer (**PGM CODE** 180-btn 19) determines the period between tones.	0: OFF 1: ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	100-110 AUTO HOLD (1:ON/0:OFF) : OFF	Enables Auto Hold for the station. With Auto Hold enabled, the system will place an active external call on hold if the user presses a CO/IP or DSS button.	0: OFF 1: ON	Atd: ON Others: OFF
3	100-110 TIME RESTRICT (1:ON/0:OFF) : OFF	The system can automatically disconnect outgoing calls at expiration of the Call Restrict timer (**PGM CODE** 180-btn 14).	0: OFF 1: ON	OFF
4	100-110 IND CO ACCESS (1:EN/0:DIS) : ENABLE	Permits stations to use dial codes to access individual CO Lines.	0:Disable 1:Enable	ENABLE
5	100-110 CO/IP QUEUING (1:EN/0:DIS): ENABLE	Permits the station to queue for the next available Line when an All Lines Busy signal is received.	0:Disable 1:Enable	ENABLE
6	100-110 CO PGM (1:EN/0:DIS): DISABLE	A station can be permitted to change the CO Line numbers (ports) associated with a CO Line button.	0:Disable 1:Enable	DISABLE
7	100-110 RING LINE PRE (1:EN/0:DIS) : ENABLE	Enables Ringing Line Preference for the station. Calls that ring the telephone are answered by going off-hook.	0:Disable 1:Enable	ENABLE
8	100-110 SPD ACCESS (1:EN/0:DIS) : ENABLE	Allows the station access to System Speed Dial bins.	0:Disable 1:Enable	ENABLE
9	100-110 UCD GRP SVC (1:ON/0:OFF) : OFF	When unavailable, DID/DISA calls to the station can be routed to the ACD Group to which the station is a member.	0: OFF 1: ON	OFF
10	100-110 RING GRP SVC (1:ON/0:OFF) : OFF	When unavailable, DID/DISA calls to the station can be routed to the Ring Group to which the station is a member.	0: OFF 1: ON	OFF
11	100-110 TWO WAY RECD (1:ON/0:OFF) : OFF	When allowed, the station can activate the Two-way record feature to record a conversation.	0: OFF 1: ON	OFF
12	100-110 MSG SCRL SPD (0 - 7) : 3	Select message scroll speed for 7000 series IP phone (Not presently used).	0 ~7	3
13	100-110 HOT DESK STN (1:ON/0:OFF) : OFF	A station can be assigned as a Hot Desk phone. Users and agents can login and use resources of the system through the Hot Desk phone.	0: OFF 1: ON	OFF
14	100-110 PREFER CO/GRP …..	The system will seize this CO Line or CO group number when the station dials '9' (First available CO access code).	CO # or CO Grp #	..
15	100-110 SEND SLT CLI (1:ON/0:OFF) : OFF	When allowed, system will send CLI information to the SLT.	0: OFF 1: ON	ON
16	100-110 UCD PRIORITY (0-9) : 0	ACD Group members may be assigned a priority, 0-9. Members with the highest priority are sent calls ahead of lower priority members. This field is the same as **PGM CODE** 191-btn 19 for ACD Groups.	0 ~ 9	0
17	100-110 EZ PWD LOGIN (1:ON/0:OFF)	For ez Atd. enables/disables required Auth code use.	0: OFF 1: ON	OFF
18	100-110 EMERGENCY CO …..	This field defines the CO Line or Group employed by the system to place Emergency Assistance calls.	CO # or CO Grp #	Any CO

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
19	100-110 STA ACCOUNT (1:ON/O:OFF)	When ON, the station user must enter an authorization code to access CO Lines.	0: OFF 1: ON	OFF
20	100-100 UN CALL REC (1:ON/0:OFF) : ON	This field enables unconditional recording of all calls placed/received by the station. Recordings, in .wav format, are stored at the Phontage/UCS Client defined under button 21.	0: OFF 1: ON	OFF
21	100-100 CALL REC STA 101	When unconditional Call recording is enabled as above, the recording Phontage or UCS Client station number is defined here.	station	
22	100-100 VSF BK DEL (1:ON/0:OFF) : ON	A Phontage or UCS Client may monitor voice messages for another station as a back up. The Phontage or UCS Client will include the message count for the station in the Voice message count. When enabled here, the Phontage/UCS Client may delete messages for the station.	0: OFF 1: ON	OFF
23	100-100 VSF BK STA 126	A Phontage or UCS Client may monitor voice messages for another station as a back up. The Phontage or UCS Client will include the message count for the station in the Voice message count. This field defines the Phontage or UCS Client station number that will be used as the VSF/VMIM back up.	station	
24	100-100 VSF BK PROM (1:ON/0:OFF) : ON	Enables a Phontage or UCS Client to backup VSF Prompts.	0: OFF 1: ON	OFF

Table 2.3.3.2-3 STATION ATTRIBUTES III (PGM 113)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100-110 ADMIN (1:EN/0:DIS) : ENABLE	Enables station access to the System Database.	0:Disable 1:Enable	ENABLE
2	100-110 VSF ACCESS (1:EN/0:DIS) : DISABLE	Permits station access to the built-in AA/VM.	0:Disable 1:Enable	ENABLE
3	100-110 GROUP LISTEN (1:EN/0:DIS) : DISABLE	Enables Group Listen feature, audio is sent to both the handset and speaker with the handset microphone active and speakerphone microphone OFF.	0:Disable 1:Enable	DISABLE
4	100-110 OVERRIDE (1:EN/0:DIS) : DISABLE	Enables intrusion to gain access to an active CO/IP call.	0:Disable 1:Enable	DISABLE
5	100-110 SMDR HIDE (1:EN/0:DIS) : DISABLE	Enables hiding dialed digits in SMDR output.	0:Disable 1:Enable	DISABLE
6	100-110 VOICE OVER (1:EN/0:DIS) : ENABLE	Enables use of Voice Over by station.	0:Disable 1:Enable	ENABLE
7	100-110 PRIME LINE (1:HOT/0:WARM) : WARM	Enables Delayed Prime Line (Idle Line) activation, see **PGM CODE** 121, Idle Line Selection and **PGM CODE** 182-btn 6 for Prime Line timer.	1: HOT 2: WARM	WARM
8	100-110 ALARM/DOORBEL (1:EN/0:DIS) : DISABLE	Assigns station to receive Alarm/Doorbell signal.	0:Disable 1:Enable	DISABLE

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
9	100-110 DID CALL WAIT (1:ON/0:OFF) : OFF	When a busy station receives a DID call, the call may queue to the station instead of receiving busy tone. With DID Call Wait, the caller will hear Ring-back and the user sees the CO line LED flash.	0: OFF 1: ON	ON
10	100-110 LEFT MSG EXEC (1:ON/0:OFF) : OFF	When a call is forward to the Secretary of an Executive/Secretary pair, messages can be left for the Executive (ON) or Secretary (OFF).	0: OFF 1: ON	ON
11	100-110 E&MIC HEADSET (1:ON/0:OFF) : OFF	Select E&Mic Headset mode for new IP Phone	0: OFF 1: ON	OFF
12	100-110 ENBLOCK MODE (1:ON/0:OFF) : OFF	When On, the user-dialed digits are stored at the iPECS Phone until explicitly sent by the user. When sent, all dialed digits are sent to the system in a block. Enblock mode is only available to iPECS Phones with soft keys.	0: OFF 1: ON	OFF
13	100-110 MSG RETRIEVE (1:FIFO/0:LIFO) : LIFO	Messages stored in the VSF may be retrieved in either a FIFO (first-in-first-out) or LIFO (last-in-first-out) order based on this entry.	1: FIFO 0: LIFO	LIFO
14	100-110 VMID NUMBER 4000	When using an adjunct VM, the system can translate the Mailbox number from the user's station number to the assigned VMID. The system sends the station number or VMID to the VM (in-band or SMDI) in order to identify the appropriate Voice Mailbox.	0000-9999	Station #
15	100-110 AUTO ACD-DND ([SPD],0-9,*,#): ..	If an Agent does not answer an ACD call in the ACD No Answer timer, the Agent enters an Unavailable state with the Reason code entered here. The reason code is sent in the ACD Event message.	0: None #, * 1 ~ 9	None
16	100-110 FWD IF OOS (1:ON/0:OFF) : OFF	If a station is Out-of-Service and has previously forwarded calls, the system will forward the calls, if enabled here.	0: OFF 1: ON	OFF
17	100-110 BACK LIGHT (O:OFF/1:BUSY/2:ON): 0	The backlight of the LIP-7000 series phones is assigned to stay off, light only when the station is busy, or light constantly.	0: OFF 1: Busy 2: ON	1
18	100-100 UMS MailSvrIP	The VMIM includes notification of new messages to the user's e-mail. This field displays the user's e-mail mail server for the notification. Use Web Admin **PGM CODE** 132 to modify this value.	IP v4 address Or Mail server name	
19	100-100 UMS Mail Addr Xyz@abcco.com	The VMIM includes notification of new messages to the user's e-mail. This field displays the e-mail address to notify when a new message is received at the VMIM. Use Web Admin to modify this value.	e-mail address	
20	100-100 BLOCK B-CALL (1:ON/0:OFF) : ON	When an SLT extension tries to transfer a CO call to a CO line it is blocked and the call is released.	0 : OFF 1 : ON	OFF
21	100-100 BY PASS DTMF (1:ON/0:OFF) : ON	When detected, DTMF from an SLT may be regenerated by LGCM, SLTM port can by-pass detection so DTMF is not detected..	0 : OFF 1 : ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
22	100-100 PROCTOR MONIT (1:ON/0:OFF) : OFF	Enables use of PABX ANI Link device for E-911 support, Only an SLT can be used for this feature.	0 : OFF 1 : ON	OFF
23	100-100 UMS MailSvrID ……	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the user's ID to notify when a new message is received at the VSF or VMIM.		
24-1	100-100 UMS MailSvrPW ……	Unified Mail server password		
24-2	100-100 DOOR OPEN (1:EN/0:DIS) : DISABLE	Enables use of Door open feature by station - Default value : Korea : Disable Austrilia : Disable except for port 1or2 Otherwise : Enable	0:Disable 1:Enable	
24-3	100-100 VSF MSG DD/TM (1:ON/0:OFF) : ON	When ON, play the data/time stamp of VSF message	0 : OFF 1 : ON	ON

2.3.3.3 Station Attributes IV -PGM Code 114-

When a station uses an ISDN Line, various parameters relating to ISDN Calling Line Identification and Connected Line Identification can be assigned for each station. In addition, when the station is an SLT, several parameters must be set to indicate the capabilities related to the station, such as 3.1 KHz audio for ISDN use. Refer to Table 2.3.3.3-1 for a description of the attributes and the inputs available.

PROCEDURE:	
STATION ATTRIBUTES ENTER STA RANGE	1. Press the **[PGM]** button and dial 114.
100-110 STATION ATT PRESS FLEX_KEY (01-12)	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
Refer to Table 2.3.3.3-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.3.3-1.
	Use the dial-pad to enter desired data for the attribute, refer to Table 2.3.3.3-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.3-1 STATION ISDN ATTRIBUTES (PGM 114)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100-110 CLIP DISPLAY (1:ON/0:OFF) : OFF	CLIP (Calling Line Identification Presentation), an ISDN service, sends the number of the calling party to the system in the call SETUP message. If enabled here, the number will be shown in the iPECS Phone LCD.	0: OFF 1: ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	100-110 COLP DISPLAY (1:ON/0:OFF) : OFF	COLP (Connected Line Id Presentation), an ISDN service, sends the number of the answering party to the system in the call CONNECT message. If enabled here, the number will be shown in the iPECS Phone LCD.	0: OFF 1: ON	OFF
3	100-110 PROGRESS IND (1:ON/0:OFF) : OFF	When employing a non-ISDN terminal, specifically a modem or analog FAX, the ISDN call SETUP message must include this message and the Progress Indication parameter should be set to “ON”.	0: OFF 1: ON	OFF
4	100-11- CLIR SERVICE (1:ON/0:OFF) : OFF	CLIR (Calling Line Identification Restriction), an ISDN service, removes calling party Id sent from the PSTN to the called party with a RESTRICT instruction in the SETUP message. If enabled here, the system will send the RESTRICT instruction to the PSTN when an outgoing ISDN call is placed.	0: OFF 1: ON	OFF
5	100-110 COLR SERVICE (1:ON/0:OFF) : OFF	COLR (Connected Line Id Restriction), an ISDN service, removes connected party Id sent from the PSTN to the calling party with a RESTRICT instruction in the CONNECT message. If enabled here, the system will send the restrict instruction to the PSTN when the station answers an ISDN call.	0: OFF 1: ON	OFF
6	100-110 CLI STA NO 100	When not restricted (btn 4 & 5 above) and entry 00 of the CLIP/CLOP Table is selected in **PGM CODE** 143-btn 1& 2, this entry is added to the number sent in the ISDN call SETUP or CONNECT message in place of the station number.	12 digits	Station number
7	100-110 3.1 kHz AUDIO (1:ON/0:OFF) : OFF	When an analog device (SLT or FAX) uses an ISDN Line in the system, the Information Element of the ISDN SETUP message must indicate it only has 3.1 KHz audio capabilities. If an SLT or analog FAX will be allowed access to the ISDN Lines, this parameter must be “ON”	0: OFF 1: ON	OFF
8	100-110 CLI NAME DISP (1:ON/0:OFF) : OFF	When the CLI data from the PSTN in the call SETUP message matches a number in Speed Dial, the system can display the name associated with the Speed Dial bin, if set to ON.	0: OFF 1: ON	OFF
9	100-110 CLI/REDIRECT (1:RED/0:CLI) : CLI	When an incoming ISDN call is Redirected by the ISDN, the call SETUP message will contain an original and redirected CLI. This selection determines if the iPECS Phone will display the original or redirected number.	1: Redirect 0: CLI	CLI
10	100-110 CLI MSG-WAIT (1:ON/0:OFF) : OFF	A log of caller identification can be maintained for the user, permitting the user to call back the identified party. System-wide, up to 1000 entries can be maintained in the log.	0: OFF 1: ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
11	100-110 EXT OR ATD (1:ATD/0:EXT) : ATD	When the system sends a station number with CLIP or COLP, the number can be either the Attendant number or the number of the station.	1: ATD 0: EXT	ATD
12	100-110 MSN WAIT (1:ON/0:OFF) : OFF	When a station has an MSN button, the station can receive ring for a call to the MSN number associated with the MSN button.	0: OFF 1: ON	OFF
19	100-110 OGM DEST NOT ASSIGNED	If a CO/IP incoming, Caller dials "0" when listening to a station's VSF mailbox greeting the call is routed according to this option.		

2.3.3.4 Flexible button Assignment -PGM Code 115-

Each Flex button for each iPECS Phone/DSS Console can be assigned a function (Type) and an associated Value as shown in Table 2.3.3.4-1.

For assignments to an iPECS DSS Console, the **[VOL UP]/[VOL DOWN]** buttons shift the Flex button appearance on the Admin station to the next or previous group of 24 buttons as they appear on the iPECS DSS Console. When multiple DSS Consoles are associated with a station, **[VOL UP/VOL DWN]** are used to access and assign a function to the console buttons. Each console contains entries for 48 buttons even though the console may only have 12 buttons. In this case, assignments for buttons 13 to 48 are ignored.

Table 2.3.3.4-2 shows the default button assignments for the iPECS Phones and Table 2.3.3.4- and Table 2.3.3.4- provide default assignment for the various DSS Console button maps.

PROCEDURE:	
FLEX BUTTON ASSIGN **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 115.
100-110 BTN ASSIGN **PRESS FLEX_KEY (01-24)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	Press the desired Flex button (1~24).
	Use the dial-pad to enter the desired button TYPE (1~6) and value, if required. Refer to Table 2.3.3.4-1 for types and value range. Defaults for the iPECS Phones are shown in Table 2.3.3.4-2, for DSS Console defaults refer to Table 2.3.3.4- and Table 2.3.3.4-. In addition, for the iPECS DSS Console, use **[VOL UP]/[VOL DOWN]** buttons to access the next/previous 24 Flex buttons.
	Press the **[SAVE]** button to store the Flex button data entry.

Table 2.3.3.4-1 FLEX BUTTON TYPE & VALUE CODES (PGM 115)

TYPE	DESCRIPTION	VALUE	Remarks			
		iPECS-Micro iPECS-50 MFIM100	MFIM300	MFIM600	MFIM1200	
1	Empty Button					Empty (unassigned) button, may be defined by the user.
2	User Program Fixed Numbering Plan	[PGM] & XXXX	[PGM] & XXXX	[PGM] & XXXX	[PGM] & XXXX	Assigns button to perform a User Program function from the Fixed Numbering Plan, Appendix C.
3	**{[SPEED] XXX}**	[SPEED] & 00~19 200~999	[SPEED] & 000~099 2000~4999	[SPEED] & 000~099 2000~7999	**[SPEED] & 000~099 20000~31999**	Station or System Speed Dial bin.
4	Flexible Numbering Plan Code	digits	digits	digits	digits	Assigns button to dial a code from the Flexible Numbering Plan, see Appendix B.
5	Station or Network Station	digits	digits	digits	digits	Assign network station number from network table.
6	MSN	digits	digits	digits	digits	Enter desired MSN Table index.

Table 2.3.3.4-2 iPECS PHONE BUTTON DEFAULT CONFIGURATION (PGM 115)

(iPECS-50, MFIM100, MFIM300, MFIM600 & MFIM1200)

Button	iPECS Phone								
	8004	8008	8012	8024	8040	7004	7008	7016	7024
1	{CO 1}	{CO 1}	{CO 1}	{CO 1}	{CO 1}	Trans/Pgm*	Dnd	{LOOP}	{CO 1}
2	{CO 2}	{CO 2}	{CO 2}	{CO 2}	{CO 2}	Speed*	Call Back	{LOOP}	{CO 2}
3	{CO 3}	{CO 3}	{CO 3}	{CO 3}	{CO 3}	{LOOP}	{LOOP}	empty	{CO 3}
4	{CO 4}	{CO 4}	{CO 4}	{CO 4}	{CO 4}	{LOOP}	{LOOP}	empty	{CO 4}
5		{CO 5}	{CO 5}	{CO 5}	{CO 5}		empty	empty	{CO 5}
6		{CO 6}	{CO 6}	{CO 6}	{CO 6}		empty	empty	{CO 6}
7		{CO 7}	{CO 7}	{CO 7}	{CO 7}		empty	empty	{CO 7}
8		{LOOP}	{CO 8}	{CO 8}	{CO 8}		empty	empty	{CO 8}
9			{CO 9}	{CO 9}	{LOOP}			empty	{CO 9}
10			{CO 10}	{CO 10}	{LOOP}			empty	{CO 10}
11			{LOOP}	{LOOP}				empty	{LOOP}
12			{LOOP}	{LOOP}				empty	{LOOP}
13				empty				empty	empty
14				empty				empty	empty
15				empty				empty	empty
16				empty				empty	empty
17				empty					empty
18				empty					empty
19				empty					empty
20				empty					empty
21				empty					empty
22				empty					empty
23				empty					empty
24				empty					empty

* Note these button definitions cannot be changed.

Table 2.3.3.4-3 iPECS PHONE BUTTON DEFAULT CONFIGURATION (PGM 115)

(iPECS-Micro)

Button	iPECS Phone								
	8004	8008	8012	8024	8040	7004	7008	7016	7024
1	{CO 1}	{CO 1}	{CO 1}	{CO 1}	{CO 1}	Trans/Pgm*	Dnd	{LOOP}	{CO 1}
2	{CO 2}	{CO 2}	{CO 2}	{CO 2}	{CO 2}	Speed*	Call Back	{LOOP}	{CO 2}
3	{CO 3}	{CO 3}	{CO 3}	{CO 3}	{CO 3}	{LOOP}	{LOOP}	empty	{CO 3}
4	{CO 4}	{CO 4}	{CO 4}	{CO 4}	{CO 4}	{LOOP}	{LOOP}	empty	{CO 4}
5		{CO 5}	{CO 5}	{CO 5}	{CO 5}		empty	empty	{CO 5}
6		empty	empty	empty	empty		empty	empty	empty
7		empty	empty	empty	empty		empty	empty	empty
8		{LOOP}	empty	empty	empty		empty	empty	empty
9			empty	empty	{LOOP}			empty	empty
10			empty	empty	{LOOP}			empty	empty
11			{LOOP}	{LOOP}				empty	{LOOP}
12			{LOOP}	{LOOP}				empty	{LOOP}
13				empty				empty	empty
14				empty				empty	empty
15				empty				empty	empty
16				empty				empty	empty
17				empty					empty
18				empty					empty
19				empty					empty
20				empty					empty
21				empty					empty
22				empty					empty
23				empty					empty
24				empty					empty

* Note these button definitions cannot be changed.

Table 2.3.3.4-4 iPECS DSS CONSOLE DEFAULT CONFIGURATION (PGM 115)

(iPECS-Micro)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	* First 12 Buttons: Button 1: ATD Override — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 iPECS-Micro: Buttons 13~38: Station Ports 100~125 Buttons 39~48: unassigned

Table 2.3.3.4-5 iPECS DSS CONSOLE DEFAULT CONFIGURATION (PGM 115)

(MFIM100, iPECS-50)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	* First 12 Buttons: Button 1: ATD Override — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 MFIM100 & iPECS-50: Buttons 13~48: Station Ports 100~135
MAP 2	MFIM100: Buttons 1~34: Station Ports 136~169 Buttons 35~48: unassigned IPECS-50: Buttons 1~14: Station Ports 136~149 Buttons 15~48: unassigned iPECS-Micro: Buttons 1~48: unassigned
MAP 3	MFIM100 & iPECS-50: Buttons 1~42: CO Line 01~42 Buttons 43~48: unassigned. iPECS-Micro: Buttons 1~5: CO Line 01~05 Buttons 6~48: unassigned.

Table 2.3.3.4-6 iPECS DSS CONSOLE DEFAULT CONFIGURATION (PGM 115)

(MFIM300 & MFIM600 & MFIM1200)

MAP	DEFAULT CONSOLE BUTTON CONFIGURATION
MAP 1	Button 1: Intrusion — Button 2: All Call Page Button 3: Call Park 1 — Button 4: Station Group 1 Button 5: Camp-On — Button 6: Internal All Call Page Button 7: Call Park 2 — Button 8: Station Group 2 Button 9: [Release] — Button 10: Ext. All Call Page Button 11: Call Park 3 — Button 12: Station Group 3 Buttons 13 ~ 48: Station Ports 100 ~ 135
MAP 2	Station Ports 136 ~ 183
MAP 3	Station Ports 184 ~ 231
MAP 4	Station Ports 232 ~ 279
MAP 5	Station Ports 280 ~ 327
MAP 6	CO Line 001 ~ 048
MAP 7	CO Line 049 ~ 096
MAP 8	CO Line 097 ~ 144
MAP 9	CO Line 145 ~ 192

2.3.3.5 Station Class-of-Service -PGM Code 116-

All stations are assigned a Class-of-Service (COS), which determines the ability of the user to dial certain types of calls, refer to Table 2.3.3.5-1. Separate COS assignments are made for Day, Timed and Night Mode system operation. As a default, all stations are assigned with a Station COS of 1, no restrictions for all three modes.

The station COS interacts with the CO Line COS to establish overall dialing or Toll restrictions. This interaction and the resulting restrictions are given in Table 2.3.3.5-2.

Long distance calls are determined by the 1st dialed digit ("0") and/or the number of digits dialed. If the 1st digit dialed is an LD code, default "0", or, if the number of digits dialed exceeds the assigned LD digit counter (SMDR Attributes **PGM CODE** 177 button 4), the call is consider a Long Distance call and appropriate restrictions are applied.

PROCEDURE:	
STATION COS **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 116.
100-110 STATION COS **DAY: 1 NIGHT: 1 TIMED: 1**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	Press desired Flex button, 1: Day mode COS 2: Night mode COS 3: Timed mode COS
	Use the dial-pad to enter desired data for the Station COS, refer to Table 2.3.3.5-1 & Table 2.3.3.5-2.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.5-1 STATION CLASS-OF-SERVICE (PGM 116)

STATION COS	RESTRICTIONS
1	No restrictions are placed on dialing from the station.
2	The assignments in Exception Table A are monitored for allow and deny numbers.
3	The assignments in Exception Table B are monitored for allow and deny numbers.
4	The assignments in both Exception Tables A & B are monitored for allow and deny numbers.
5	The leading digit dialed cannot be a Long Distance code, default "0", and further denied/allowed based on Exception Table C.
6	The leading digits dialed cannot be a Long Distance code & digit count cannot exceed the LD digit counter, default 8 digits, and further denied/allowed based on Exception Table C.
7	Intercom and paging calls are allowed. No outgoing dialing except for emergency calls is allowed on CO Lines.
8	The assignments in the Exception Table D are monitored for allow and deny numbers.
9	The assignments in the Exception Table E are monitored for allow and deny numbers.
10	The assignments in the Exception Table D & E are monitored for allow and deny numbers.
11	The assignments in the Exception Table A & B and D & E are monitored for allow and deny numbers.

Table 2.3.3.5-2 STATION/CO LINE COS TOLL RESTRICTIONS (PGM 116)

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 1	No Restriction	No Restriction	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 2	Exception Table A governs the dialing	Exception Table A governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 3	Exception Table B governs the dialing	No Restriction	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 4	Exception Table A&B governs the dialing	Exception Table A governs the dialing	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 5	Local Call only (LD Code, “1” or “0”) and Table C	Local Call only (LD Code “1” or “0”) and Table C	Local Call only (LD Code,“1” or “0”) and Table C	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 6	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 7	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only
STA COS 8	Exception Table D governs the dialing	Exception Table D governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 9	Exception Table E governs the dialing	Exception Table E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 10	Exception Table D&E governs the dialing	Exception Table D&E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 11	Exception Table A&B and D&E governs the dialing	Exception Table A&B and D&E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction

2.3.3.6 CO/IP Group Access -PGM Code 117-

Stations can be allowed or denied access to CO Lines and IP Channels by group, refer to CO Line Attributes, **PGM CODE** 141, button 1. As a default, all stations are allowed access to all groups except Private Lines (group 00) and unused CO Lines. The CO Line of an RSGM is assigned as a Private Line by default.

PROCEDURE:	
CO/IP GROUP ACCESS **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 117.
100 – 110 CO/IP GRP **PRESS FLEX KEY (01-20)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	The first 20 Flex button LEDs indicate group access for the iPECS-Micro, iPECS-50 & MFIM100. For other MFIMs, the first 24 Flex buttons indicate access for Line groups 1 to 24. To see groups 25 to 48 and groups 49 to 72, use the **[VOL UP]/[VOL DOWN]** buttons. Press the desired Flex button to toggle CO/IP Group access, LED on: group access allowed, LED off: group access not allowed.
	Press the **[SAVE]** button to store the data entry.

2.3.3.7 Internal Page Zone Access -PGM Code 118-

Each iPECS Phone is assigned to receive announcements from each Internal Page Zone. A station can be assigned to any, all or no zones. Note a remote station or a station not assigned to any Internal Zone will not receive any page announcements including Internal All Call. For the iPECS-Micro, iPECS-50 and MFIM100, ten Internal Page Zones are available and for other MFIMs, there are 35 zones. As a default, all stations except remote stations are assigned to zone 1.

PROCEDURE:	
INTERNAL PAGE ZONE **ENTER STA NUMBER**	1. Press the **[PGM]** button and dial 118.
100-110 I-PAGE ZONE **PRESS FLEX KEY (01-10)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	The first 10 Flex button LEDs indicate assigned zones for the iPECS-Micro, iPECS-50 & MFIM100. For other MFIMs the LEDs indicate the status for Page Zones 1 to 24, Use the **[VOL UP]/[VOL DOWN]** button to display Page Zones 25 to 35 under Flex buttons 1 ~ 11. Press the desired Flex button to toggle Internal Page Zone assignments, LED On: station receives announcement, LED Off: station does not receive announcement.
	Press the **[SAVE]** button to store the Page Zone data.

2.3.3.8 PTT (Push-To-Talk) Group Access -PGM Code 119-

Each iPECS Phone is assigned to receive PTT announcements from any combination of the nine PTT groups. Note remote stations and stations not assigned to a group will not receive PTT page announcements including All PTT group page. As a default, all stations except remote stations are assigned to group 1.

PROCEDURE:	
PTT GROUP ACCESS **ENTER STA NUMBER**	1. Press the **[PGM]** button and dial 119.
100-110 PTT GRP ACC **PRESS FLEX KEY (1-10)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	The first 10 Flex button LEDs indicate assigned zones. Press the desired Flex button to toggle Push-To-Talk group assignments, LED On: station receives announcement, LED Off: station does not receive PTT announcement. Flex button 10 assigns group 0, all groups.
	Press the **[SAVE]** button to store the PTT group data.

2.3.3.9 Preset Call Forward -PGM Code 120-

This assignment allows an external or internal call to initially ring at a station and forward to a pre-determined destination. Preset Call Forward can be assigned separately for UNCONDITIONAL, INTERNAL BUSY, INTERNAL NO ANSWER, EXTERNAL BUSY or EXTERNAL NO ANSWER preset forwarding to any Station, Hunt group, System Speed bin for Off-net or Station ICR.

For the “Transfer to Mail-Box” enter the Station Group number of the Voice Mail group (external VM, VSF or Feature Server Voice Mail group). This will permit other iPECS Phone users to transfer a call directly to the desired user’s Voice Mail-Box.

PROCEDURE:	
CALL FWD PRESET **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 120.
100 – 110 STA PRES FWD **CONDITION CHOICE F(1 - 6)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
F1:STA F2:HUNT F3:SPEED **UNCONDITION : ….**	Press Flex Button for the desired type of forward: 1. Unconditional 2. Internal Busy 3. Internal No Answer 4. External Busy 5. External No Answer 6. Transfer to Mailbox (destination must the VM Group).

ENTER FWD STA NO. **UNCONDITION : STA ….**	Select Flex button for the Destination type: 1. Station, 2. Hunt Group, or 3. System Speed Bin for Off-net. 4. Station ICR.
	Use the dial pad to enter the value associated with the selected type: For Station & Net Station, enter station number, For Hunt Group, enter Station Group Number, or For System Speed Bin for Off-Net enter Speed bin number.
	Press the **[SAVE]** button to store the data entry.

2.3.3.10 Idle Line Selection –PGM Code 121–

When a station goes to an off-hook condition (lifts handset or presses **[SPEAKER]** button), the system normally provides intercom dial tone. In place of the dial tone, the station can be programmed to access a CO Line, CO/IP Group or call a Station or Station Group as described in Table 2.3.3.10-1. The Idle Line Selection (Prime Line) can be either immediate or delayed after going off-hook. The immediate/delay selection is based on the Hot/Warm assignment in Station Attributes III Prime Line **PGM CODE** 113, button 7 and System timers **PGM CODE** 182, button 6.

PROCEDURE:	
IDLE LINE SELECTION **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 121.
100-110 IDLE LINE **NOT ASSIGNED (1-4)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
	Use the dial-pad to enter the type and value for the desired Idle Line selection, refer to Table 2.3.3.10-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.10-1 IDLE LINE SELECTION TYPE & VALUE (PGM 121)

TYPE	VALUE					DESCRIPTION
	iPECS-Micro	iPECS-50 MFIM100	MFIM300	MFIM600	MFIM1200	
1	Flex button	Flex button	Flex button	Flex button	Flex button	Flex button, activates Flex Number as if dialed.
2	01~05	01~42	001~200	001-400	001~600	CO/IP path, seizes CO line.
3	01~20	01~20	01~72	01~72	01~200	CO/IP Group, seizes CO line from the CO/IP Group.
4	100~125	IPECS-50: 100~149 MFIM100: 100~169	100~399	1000-1599	1000~2199	Station, calls the assigned station

2.3.3.11 Station IP Attributes -PGM Code 122-

Stations are allowed access to the systems H.323 VoIP resources based on the Station IP Attributes. Refer to Table 2.3.3.11-1 for a description of the attributes and the inputs available.

PROCEDURE:	
STATION IP ATTRIBUTE **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 122.
100-110 STA IP ATTRI **PRESS FLEX KEY (1)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
Refer to Table 2.3.3.11-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.3.11-1.
	Use the dial-pad to enter desired data for the Station IP Attribute, refer to Table 2.3.3.11-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.11-1 STATION IP ATTRIBUTES (PGM 122)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100-110 DTR IP CALL (1:EN/0:DIS) : ENABLE	Enables station to access an IP channel directly by dialing the IP Group access code to place H.323 or SIP VoIP calls.	0: Disable 1: Enable	Enable

2.3.3.12 Station Timers -PGM Code 123-

Certain timers can be assigned on a station basis. Available timers, description and valid inputs are given in Table 2.3.3.12-1.

PROCEDURE:	
STATION TIMERS **ENTER STA RANGE**	1. Press the **[PGM]** button and dial 123.
100-110 STATION RANGE **PRESS FLEX KEY (1-2)**	Use the dial-pad to enter a station range (Ex. 100~110). For a single station, enter the same number twice.
Refer to Table 2.3.3.12-1 **DISPLAY**	Press the desired Flex button.
	Use the dial-pad to enter desired data for the Station IP Attribute, refer to Table 2.3.3.12-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.12-1 STATION TIMERS (PGM 123)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	STA FWD NO ANS TMR sec (000-600) : 000	This timer determines the duration the station will ring prior to Ring-No-Answer Forward. This setting affects both manual and Preset Call Forward and overrides the System Ring No Answer timer **PGM CODE** 181-btn 1.	000-600 seconds	000
2	CUT OFF (Min) (00-99) : 00	Allowed length of CO/IP calls when station is assigned Call Time restriction in Station Attributes II, **PGM CODE** 112, button 3	00-99 minutes	00

2.3.3.13 Linked Station Table -PGM Code 124-

A station can be linked to another station so that the two stations effectively act as a single station with the attributes of the primary station number. An unregistered or registered station may be linked to a primary station. When unregistered station linking is used, the linked station does not reduce the system's capacity. However, in this case, either the linked station must be an iPECS Phone, Phontage, UCS Client or an SLT connected to an SLTM2. Unregistered linking of stations connected to other modules is not allowed. When an SLT phone attached to the second port of an SLTM is to be linked, in step 3 below, press Flex button 4 and select Flex button 2, dial 1 and press **[SAVE]**.

When a pre-registered station is to be linked to the primary station, it maintains its database except that the station number is the same as the primary station. In this case, the linked station will reduce the system capacity by one.

When a station is linked, characteristics of the connection to the MFIM can be defined such as local device connection and codec type.

PROCEDURE:

LINKED STA TABLE **ENTER STA NUMBER**	1. Press the **[PGM]** button and dial 124.
STA 100 IS LINKED PAIR **PRESS FLEX KEY (1-5)**	Use the dial-pad to enter primary station number for the Linked pair (Ex. 100).
Refer to Table 2.3.3.13-1 **DISPLAY**	Press the desired Flex button. For Flex button 5, after selection press Flex 1~3, as appropriate, refer to Table 2.3.3.13-1.
	Use the dial-pad to enter desired data, refer to Table 2.3.3.13-1. For Btn 4 (Linked Station Type), when the second port of an SLTM is used, press 2 and dial 1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.13-1 LINKED STATION ATTRIBUTES (PGM 124)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	SET IP ADDRESS IP: IP NOT ASSIGNED	IP Address of the linked station, not required.		
2	ROUTER IP ADDRESS IP: ROUTER IP NOT ASSIGN	Set Router IP address associated with linked station.		
3	STA 100 : SET MAC ADDR MAC: NOT ASSIGNED	Set MAC address of linked un-registered station, required data. Note the secondary station must not be registered in the system prior to linking. If needed, delete the device from the system.		..
4	STATION TYPE PRESS FLEX KEY (1-4)	Sets 2nd port of SLTM for linked station and displays the linked station type, iPECS Phone, SLT, WLAN, iPECS Video/SoftPhone.	Flex 1~4	
4-1	IPKTU TYPE USEAGE (1:ON/0:OFF) : OFF	This value is automatically defined by the system once the Linked pair is established.		
4-2	SLT TYPE USEAGE (1:ON/0:OFF) : OFF	This value is automatically defined by the system once the Linked pair is established.		
4-3	WIT TYPE USEAGE (1:ON/0:OFF) : OFF	This value is automatically defined by the system once the Linked pair is established.		
4-4	VP TYPE USEAGE (1:ON/0:OFF) : OFF	This value is automatically defined by the system once the Linked pair is established.		
5	SET LINKED ATTR PRESS FLEX KEY (1-3)	The following fields are employed to establish basic connection attributes for the Linked station.		
5-1	DIRECT SEND(MAC) (1:ON/0:OFF): ON	Use Flex button 1 to enable/disable Direct Send mode, which employs layer 2 switching to local devices.	0: OFF 1: ON	ON
5-2	LOCAL DEVICE (1:ON/0:OFF): ON	Use Flex button 2 to enable/disable Local Device Mode, which defines the device as on a common LAN with the MFIM	0: OFF 1: ON	ON
5-3	CODEC TYPE (0-3) : SYSTEM CODEC	Select the CODEC type for the selected devices: 0: G.711, 1: G.723.1, 2: G.729, 3: SYSTEM CODEC refer to **PGM CODE** 161-btn 9.	0-3	3
6	STA 102 IS LINKED PAIR LINKED STATION :	When a Linked station is pre-registered with the system, this field may be used to establish the link. Enter the secondary station number.	Station number	none

2.3.3.14 ICM Tenancy Group -PGM Code 125-

Stations can be assigned to an ICM Tenancy group under Station Attributes II **PGM CODE** 111, button 17. Up to 15 Tenant groups can be defined. Each group is configured to allow or deny placing intercom calls to stations in other groups and an Attendant station can be defined for each group. The Attendant will receive “dial 0” calls and controls Day/Night mode for the Group.

PROCEDURE:	
ICM TENANCY GROUP **ENTER GRP NUMBER(01-15)**	1. Press the **[PGM]** button and dial 125.
ICM TENANCY GRP 01 **F1:ATD F2:ACCESS**	Use the dial-pad to enter the group number (Ex. 01)
Refer to Table 2.3.3.14-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.3.14-1
	For Attendant assignment, use the dial-pad to enter the station number of the Group Attendant.
	To assign accessible ICM Tenancy groups for the group, the Flex button indicates the current Tenant group access. Press the Flex. Buttons to toggle Group access settings. (LED ON: group access allowed, LED OFF: group access denied).
	Press the **[SAVE]** button to store the data entry.

Table 2.3.3.14-1 ICM TENANCY GROUP ATTRIBUTES (PGM 125)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`ICM TENANCY GRP 01` `ATD:`	Attendant station for the ICM tenancy group. Atd. receives dial ‘0’ calls and controls Day/Night mode.	STA No	.
2	`ICM TENANCY GRP 01` `PRESS ACCESS GRP(1-15)`	ICM Tenancy groups allowed access to the selected group.	Flex 01-15	GROUP 1

2.3.3.15 LSS Label Edit -PGM Code 129-

The LIP-8012LSS 12 button DSS Console incorporates an LCD used to label the function of each button. The label, which can be up to 12 characters, is assigned in this program.

PROCEDURE:	
LSS LABEL EDIT **ENTER STA NUMBER**	1. Press the **[PGM]** button and dial 129.
STA 100 LSS LABEL **ENTER LSS IDX(1-4)**	Use the dial-pad to enter the station number associated with the console (Ex. 100).
STA 100 LSS 1 **ENTER BTN NO (01 – 12)**	Consoles are indexed, allowing multiple consoles to be associated with a station. Use the dial-pad to enter the index of the LSS console (1 ~ 4).
STA 100 LSS 1 BTN 1 **LABEL IS EMPTY**	Use the dial-pad to enter the desired LSS console button number (1 ~ 12).
	Edit the label referring to Table 2.1.2-1.
	Press the **[SAVE]** button to store the data entry.

2.3.4 BOARD (GATEWAY) DATA - PGM CODES 130 to 132 -

2.3.4.1 H323 VoIP Attributes -PGM CODE 130-

Except for the MFIM600/1200, MFIMs incorporate a 6-channel VoIP gateway. The optional VOIM8 provides up to eight (8) VoIP channels and the VOIM24 provides up to 24 VOIP channels. These VOIP channels are used for Distributed Networking, access to SIP or H.323 networks and for remote iPECS devices. When the standard H.323 VoIP protocol is employed for an external VoIP call, several attributes of these channels can be assigned. The H.323 call set-up mode and tunneling (H.245 Encapsulation) can be established.

Also for H.323 support, a RAS (Registration, Admissions and Status) channel can be defined. The RAS channel IP addresses (uni-cast and multi-cast) as well as the IP port Numbering Plan and other H.323 set-up characteristics are defined.

This **PGM CODE** also allows setting the IP TOS bit for Diffserv, a commonly recognized packet prioritization protocol. Higher priority packets are given priority in the Router or Layer 3 Switch queue. However, they are the first to be discarded in the event of long queue delays, which may cause excess packet loss and poor voice quality.

Refer to Table 2.3.4.1-1 for a description of the features and the input required.

PROCEDURE:	
H323 VOIP ATTRIBUTE **ENTER SEQ NO(001-143)**	1. Press the **[PGM]** button and dial 130.

001 H323 VOIP BASE ATTR **PRESS FLEX KEY (1-14)**	Use the dial pad to enter the VoIP gateway sequence number. For iPECS-Micro and IPECS-50, the acceptable range is 001~120. For the MFIM100, the acceptable range is 001~143. For the MFIM300, the acceptable range is 001~531. For MFIM600, the acceptable range is 001~999. For MFIM1200, the acceptable range is 0001~2000. An invalid entry will return error tone.
Refer to Table 2.3.4.1-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.4.1-1.
	Use the dial pad to enter the desired data, refer to Table 2.3.4.1-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.4.1-1 H.323 VOIP ATTRIBUTES (PGM 130)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**H323 SETUP MODE** **(1:FAST/0:NORM): NORM**	H.323 IP calls can be set-up using the H.323 normal or Fast Start mode.	1: Norm 0: Fast	Norm
2	**H323 TUNNEL MODE** **(1:ON/0:OFF) : OFF**	H.323 IP calls can be set-up using the H.245 encapsulation (Tunneling).	0: OFF 1: ON	Off
3	**H323 DTMF PATH** **(1:OUT/0:IN): OUTBAND**	During a connection, DTMF digits can be sent in-band or out of band (H.245).	1: Outband 0: Inband	Out: VoIP In: VOIM
4	**001-001 DIFFSERV PRETAG** **CODE (00-63) : 04**	Diffserv pre-tagging for Voice packet. Note high values may cause high packet discard levels.	0~63	4
5	**RAS USAGE** **(1:ON/0:OFF) : OFF**	Determine whether VOIM (VOIP) Gateway will be used as a GateKeeper.	0: OFF 1: ON	Off
6	**RAS MULTICAST IP** **224.0.1.41**	Multi-cast IP address for RAS Information of Gatekeeper.	IP Address	224.0.1.41
7	**RAS MULTICAST PORT** **(00001-65535): 00001**	Multi-cast IP Port for RAS Information of Gatekeeper.	IP Port #	1718
8	**RAS UNICAST IP** **82.134.80.2**	Uni-cast IP address for RAS Information of Gatekeeper.	IP Address	82.134.80.2
9	**RAS UNICAST PORT** **(00001-65535): 00001**	Uni-cast IP Port for RAS Information of Gatekeeper.	IP Port #	1719
10	**RAS KEEP_ALIVE TM** **(001-999) : 120 (sec)**	The time between exchange of RAS Information between GK and VOIM.	001-999 (SEC)	120
11	**RAS NUM PLAN PREFIX** **……..,,**	The numbering plan for Calling Number in RAS Setup.	Number (24 digits)	.
12	**RAS GATEWAY ID** **ONLY POSSIBLE BY WEB AD**	The GateKeeper ID (This can be programmed only via WEB Admin).	128 Character	
13	**RAS LIGHT RRQ** **(1:ON/0:OFF) : OFF**	The system can be assigned to use the simple RRQ (Registration Request) message (ON) or the full RRQ message (OFF).	0: OFF 1: ON	OFF
14	**TCP KEEP ALIVE** **(1:ON/0:OFF) : ON**	The system will send a polling message every 75 seconds to assure the status of the TCP connection.	0: OFF 1: ON	ON

2.3.4.2 T1/E1/PRI Attributes -PGM CODE 131-

Each T1/PRI module can be assigned for various attributes of the interface. The T1 interface framing and line coding can be selected and, for the PRI, TE or NT operation and CRC check can be selected. Refer to Table 2.3.4.2-1 for a description of the features and the input required. Note that the Sequence Number can be determined in **PGM CODE**103, Button 1.

PROCEDURE:	
T1 /E1/PRI ATTRIBUTE **ENTER SEQ NO (001 –143)**	1. Press the [PGM] button and dial 131.
T1 /PRI ATTRIBUTE **PRESS FLEX KEY (1 – 6)**	Use the dial pad to enter the Sequence Number of the desired T1/PRI module. Use **PGM CODE** 103 to determine Sequence Numbers.
Refer to Table 2.3.4.2-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.4.2-1.
	Use the dial pad to enter the desired data, refer to Table 2.3.4.2-1.
	Press the **[SAVE]** button to store the Table data entry.

Table 2.3.4.2-1 T1/PRI MODE (PGM 131)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**T1 SETUP MODE** **(1:ESF/0:D4) : D4**	Select T1 Setup mode D4 frame: Use In-Band Control Protocol. ESF: Use Data link Message.	1:ESF 0:D4	D4
2	**T1 LINE MODE** **(1:AMI/0:B8ZS) : B8ZS**	Select T1 line mode (AMI/B8ZS)	1:AMI 0:B8ZS	B8ZS
3	**PRI LINE MODE** **(1:TE/0:NT): TE**	Select TE/NT mode.	1:TE 0:NT	TE
4	**PRI CRC CHECK** **(1:ON/0:OFF): ON**	For PRI lines the CRC (Cyclical Redundancy Check) can be disabled (OFF).	0: OFF 1: ON	ON
5	**E1 R2DSP CHECK** **(1:ON/0:OFF): ON**	Used for R2-El Gateway or E1 Gateway.	0: OFF 1: ON	ON
6	**DCO PX TYPE** **(0-3): STANDARD(2)**	Reserved for future use with R2 E1 Gateway	0: S1240 1: TDX1B 2: STANDARD 3:CONGES_DI	STANDARD

2.3.4.3 Board Base Attributes -PGM CODE 132-

Appliances (gateway Modules and IP Phones) can be connected to the iPECS over a managed WAN without the need to employ a VoIP channel. In this case, the system does not implement security (IPSec) or QoS treatment over the link. To implement the managed WAN connectivity, the iPECS must be assigned with the IP address of the router for all appliances that may attempt a

point-to-point connection over the managed WAN, including devices on the iPECS LAN. Note that if the device's Router IP address is not defined, the system will use the Router IP address defined in **PGM CODE** 102.

The default codec employed by each device can be specifically defined as G.711, G.723, G.729, G.722 or the system default codec **PGM CODE** 161 can be defined.

Note that the Sequence Number can be determined in **PGM CODE**103, Button 1.

PROCEDURE:	
BOARD BASE ATTRIBUTE **ENTER RANGE (001–143)**	1. Press the **[PGM]** button and dial 132.
001 BOARD ATTRIBUTE **PRESS FLEX KEY (1–7)**	Use the dial pad to enter the Sequence Number range of the desired module. Use **PGM CODE** 103 to determine Sequence Numbers.
Refer to Table 2.3.4.3-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.4.3-1.
	Use the dial pad to enter the desired data, refer to Table 2.3.4.3-1.
	Press the **[SAVE]** button to store the Table data entry.

Table 2.3.4.3-1 BOARD ATTRIBUTES (PGM 132)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	002-002 ROUTER IP ADDR 0 .0 .0 .0	Enter the default gateway (Router) IP address associated with the selected devices.		
2	002-002 DEV CODEC TYPE (0-4): SYSTEM CODEC	Select the CODEC type for the selected devices: 0: G.711, 1: G.723.1, 2: G.729, 3: G.722 4: System Codec refer to **PGM CODE** 161-btn 9.	0-3	3
3	002-002 FIRWALL IP ADDR 0 .0 .0 .0	Enter the Firewall IP address associated with the selected devices.		0.0.0.0
4	002-002 RTP SECURITY (1:ON/0:OFF) : OFF	Remote iPECS terminals and the RSGMs use IPSec to assure a secure connection. To reduce bandwidth use, IPSec may be disabled.	0: OFF 1: ON	ON
5	001-001 TNET ENABLE (0:ON/0:OFF) : ON	When a module or station is to be connected in a Centralized Control network (TNET), the device must be enabled for TNET operation.	0: OFF 1: ON	ON
6	UMS SENDER MAIL	VSF/VMIM e-mail address for Mailbox Mail Sending.		NULL
7	T38 ENABLE (1:ON/0:OFF) : OFF	T38 mode ON/OFF for FAX data transfer between other iPECS gateways.	1: ON 0: OFF	OFF

2.3.5 CO LINE DATA – PGM CODES 140 to 151 –

2.3.5.1 CO Service Type -PGM Code 140-

Each CO Line is assigned a type, Normal or DID. Normal CO Lines can be employed for DISA Service **PGM CODE** 146. DID lines are for incoming only operation and provide call routing based on signaling from the carrier, refer to section 2.3.5.4 DID Service Attributes -PGM Code 145-.

PROCEDURE:	
COL SERVICE ATT **ENTER COL RANGE**	1. Press the **[PGM]** button and dial 140.
01-02 SVC TYPE (1-3) **NORMAL CO (1)**	Use the dial pad to enter a CO Line range. For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
	Use the dial pad to enter the desired service type: 1: Normal CO line 2: DID line 3: TIE line. 4: Unused line.
	Press the **[SAVE]** button to store the data entry.

2.3.5.2 CO/IP Attributes I ~ III -PGM Codes 141~143-

CO/IP Attributes define various characteristics of the CO lines and IP facilities under control of the system. Most require a dial pad input of 1 or 0 to set the characteristic, refer to Table 2.3.5.2-1 to Table 2.3.5.2-3. Specific descriptions for Class-of-Service and CO line Call Metering tones are provided in Table 2.3.5.2-4 and Table 2.3.5.2-5 respectively.

PROCEDURE:	
CO/IP ATTRIBUTE 1 **ENTER COL RANGE**	1. Press the **[PGM]** button and dial: 141 for CO/IP Attributes I 142 for CO/IP Attributes II 143 for CO/IP Attributes III.
01-02 CO/IP ATT 1 **PRESS FLEX_KEY (01-11)**	Use the dial-pad to enter a CO/IP line range. For a single CO/IP Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.2-1 to -3 **DISPLAY**	Press the desired Flex button; refer to Table 2.3.5.2-1 to Table 2.3.5.2-3.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.5.2-1 through Table 2.3.5.2-5.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.2-1 CO/IP ATTRIBUTES I (PGM 141)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	01-02 CO/IP GROUP GRP NO (00-21) : 01	Each CO Line is assigned to a group; grouping should be based on the Line type and COS.	iPECS-Micro, iPECS-50 & MFIM100 00~21 other MFIM 00~73	01
2	01-02 CO Line COS COS (1-5) : 1	Each CO Line is assigned a Class-of-Service which will interact with the Station COS, refer to section 0 - CO COS 1: Station COS applies - CO COS 2: Exception Table A governs - CO COS 3: Exception Table B governs - CO COS 4: Restricts LD calls and Exception Table C - CO COS 5: Overrides Station COS 2~6 with no restrictions.	1~5	1
3	01-02 CO START SIGNAL (1:GND/0:LOOP) : LOOP	The system can recognize a loop closure or a ground as the “connect” (start) signal on an analogue CO Line.	0: LOOP 1: GND	LOOP
4	01-02 CO LINE TYPE (1:PBX/0:CO) : CO	Each CO Line can be assigned as connected to a CO Line or a PBX/CTX Line.	0: CO 1: PBX	CO
5	01-02 CO LINE SIGNAL (1:DTMF/0:PULSE):DTMF	Each analogue CO Line can be assigned to send either DTMF or Pulses for dialed digits to the PSTN.	0: Pulse 1: DTMF	DTMF
6	01-02 FLASH TYPE (1:GND/0:LOOP): LOOP	Analogue CO Lines can generate either an Open Loop or a momentary ground connection as the FLASH signal.	0: LOOP 1: GND	LOOP
7	01-02 UNA (1:ON/0:OFF) : OFF	Universal Night Answer (UNA) allows any station to answer a call on the CO Line by dialing the UNA code.	0: OFF 1: ON	OFF
8	01-02 CO/IP GRP AUTH (1:ON/0:OFF) : OFF	Each CO/IP Group can be assigned to require the user enter an Authorization Code for access.	0: OFF 1: ON	OFF
9	01-02 DATA STATION NO FAX : ….	Each CO/IP line can be assigned to recognize a FAX call when a specified station answers.	Station Number	0
10	TENANCY GROUP (00-15) : 00	Only stations in the assigned Tenancy group are permitted access to the defined CO Line.	00~15	00
11	001-001 CO VOIP MODE VOIP MODE(1-3):	The VOIM channels can support iPECS, H.323 or SIP protocols. This field defines the protocol for the VoIP channel(s).	1: iPECS 2: H.323 3: SIP	1
12	001-001 PROCTOR ON/OFF (1:ON/0:OFF) : OFF	Each analogue CO line can be assigned to send the station number as DTMF digits for Proctor service.	0: OFF 1: ON	OFF
13	001-001 WAIT IF DVU BUSY (1:ON/0:OFF) : ON	When a DID/DISA call assigned to receive a VSF/VMIM announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or route to the , DID/DISA Destination -PGM Code 167-.	0: OFF 1: ON	ON

Table 2.3.5.2-2 CO/IP ATTRIBUTES II (PGM 142)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	01-02 CO NAME DISPLAY (1:ON/0:OFF) : OFF	The IP Phone display can indicate the CO Line/IP channel number or a twelve (12)-character name, if assigned.	0: OFF 1: ON	OFF
2	01-02 CO NAME ASSIGN ……	Each CO Line and the IP group can be assigned a twelve (12) character name for display purposes, see Table 2.1.2-1 for character entry sequence.	12 characters	
3	01-02 METERING UNIT 00:NONE (00-11)	Selects the call-metering signal from the PSTN to indicate call cost, refer to Table 2.3.5.2-5.	00~11	00
4	01-02 LINE DROP(CPT) (1:ON/0:OFF) : OFF	Each CO Line can be programmed to disconnect if a second dial tone is detected. [not supported]	0: OFF 1: ON	OFF
5	01-02 DISA ACCT CODE (1:ON/0:OFF) : OFF	With DISA ACCT CODE “ON”, users will be required to enter an Authorization code. Enter codes in Authorization Codes Table -PGM Code 227-.	0: OFF 1: ON	ON
6	01-02 MOH: (0-3) MUSIC 1 (1)	A held call can be connected to one (1) of three (3) possible audio sources while on Hold as Music-on-Hold (MOH).	0: none 1: Int/Ext 1 2: Ext 2 3: VSF	1
7	01-02 CO DIAL TONE (1:ON/0:OFF) : OFF	ISDN Lines may provide a digital signal rather than actual tones. In this case, the iPECS can provide the tones. If the ISDN provides the tones for buttons 7 to 10, the tone is “ON”, for an iPECS system-generated tone, the ISDN tone is set to “OFF”.	0: OFF 1: ON	ON
8	01-02 CO RBACK TONE (1:ON/0:OFF) : OFF		0: OFF 1: ON	OFF
9	01-02 CO ERROR TONE (1:ON/0:OFF) : OFF		0: OFF 1: ON	OFF
10	01-02 CO BUSY TONE (1:ON/0:OFF) : OFF		0: OFF 1: ON	OFF
11	01-02 DISA CO ACCESS (1:ON/0:OFF) : OFF	Permits DISA users access to the VoIP facilities of the system.	0: OFF 1: ON	OFF
12	01-02 FLASH TMR (000-300 10 ms) : 050	This entry sets the duration of a Flash on the CO Line.	(000-300) 10 msec	050 500 msec
13	01-02 OPEN LOOP (00-20 100ms) : 04	This entry sets the duration of open loop that will be recognized as a “Disconnect Signal”.	(00-20) 100 msec	04
14	01-02 ICLI DT TMR (00-20 SEC) : 00	When a call is received, the system may use the ICLID (Incoming Caller ID) to route the call. The system will delay routing a call for this timer while awaiting ICLID. Enter a 00 to disable ICLID routing.	(00-20) 1 sec	00
15	01-02 SMS OUTGOING (1:EN/0:DIS) : DISABLE	Each CO line can be assigned to support PSTN SMS.	0: Disable 1: Enable	Disable
16	01-02 SMS RCV STATION STA :	When a PSTN SMS is received, the system delivers the message to the assigned station.	Station	….

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
17	01-02 DL TN:(00-10) DIAL TONE (00)	One of eleven dial tones can be used by the CO line	0: dial tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0.
18	01-02 RB TN:(00-10) RING BACK TONE (00)	One of eleven ring back tones can be used by the CO line.	0: ring back tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0.
19	01-02 REJECT ANONYMOUS (1:ON/0:OFF) : OFF	When REJECT ANONYMOUS “ON”, incoming call without Caller ID will be rejected.	0: OFF 1: ON	OFF

Table 2.3.5.2-3 CO/IP ATTRIBUTES III (PGM 143)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	01-02 COLP TABLE INDEX INDEX : NOT ASSIGNED	When an incoming call on an ISDN Line is answered, the system will send caller id using the number from the CLIP/COLP Table -PGM Code 201- entry defined by this parameter. For entry 10 in MFIM & MFIM100 & iPECS-50 & iPECS-Micro or entry 50 for other in MFIMs, the CLI STA NO entered in **PGM CODE** 114-btn 6 will be used in place of the station number. For other entries, the station number is added as a suffix to the entry in **PGM CODE** 201.	iPECS-Micro, iPECS-50 & MFIM100 00~10 Other MFIM 00-50	None
2	01-02 CLIP TABLE INDEX INDEX : NOT ASSIGNED	When a call is placed on an ISDN Line, the system will send caller id using the number from the CLIP/COLP Table -PGM Code 201- entry defined by this parameter. For entry 00, the CLI STA NO entered in **PGM CODE** 114-btn 6 will be used in place of the station number. For other entries, the station number is added as a suffix to the entry in **PGM CODE** 201.	iPECS-Micro, iPECS-50 & MFIM100 00~10 Other MFIM 00-50	None
3	01-02 EN-BLOC SENDING (1:ON/0:OFF) : ON	This entry determines if the system sends dialed digits to the ISDN line as they are received (Overlap) or collects all digits and forwards them in a block, ENBLOC.	0: OFF 1: ON	ON

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
4	01-02 TYPE OF NO(0-4) NATIONAL (2)	For outgoing calls on the ISDN Line, this parameter defines the "Type of Number Plan" provided in Calling Party Information Element of the ISDN call SETUP message. 0: UNKNOWN 1: INTERNATIONAL 2: NATIONAL 3: Not used 4: SUBSCRIBER	0~4	2
5	01-02 DID REMOVE NO (00-99) : 00	When a DID call is received on an ISDN Line, this entry determines the number of digits that will be removed starting with the first received digit.	00~99	00
6	01- 02 TEI TYPE (1:AUTO/0:FIX) : AUTO	The TEI (Terminal Endpoint Identifier) is a unique identifier for each device attached to the ISDN line. When the system shares an ISDN connection with other devices, the TEI should be automatic to assure no conflict with other attached devices. When the ISDN connection is not shared, the Fixed identifier option should be employed.	0: FIX 1: AUTO	AUTO
7	01- 02 ISDN-SS CD/CR (1:EN/0:DIS) : DISABLE	Permits a user access to ISDN Supplementary Call Deflection or Call Re-route Service. (Except USA version)	0: Disable 1: Deflect 2: Reroute	Disable
8	01- 02 ISDN 1 DGT RM (1:ON/0:OFF) : OFF	Select one digit remove mode in ISDN Called Digits (for Italy).	0: OFF 1: ON	OFF
9	001-002 AOC TYPE (0-5) NO SERVICE (0)	When assigned, the system will analyze the Advice of Charge information in the Facility Message according to the ETSI specifications with appropriate regional protocol support.	0:No Serv. 1: Italy & Spain 2: Finland 3: Australia 4: Belgium 5:ETSI STD	0
10	001-002 ISDN LINE TYPE (1:U/0:A): U_LAW	The system will encode voice using the A-law or u-law PCM format and should be set to match the ISDN Back bone type.	0: A-Law 1: μ-Law	μ-Law
11	01-02 CALLING SUBADDR (1:ON/0:OFF) : OFF	For outgoing calls, the user's station number may be included in the ISDN call SETUP message Sub-address field.	0: OFF 1: ON	OFF
12	01-02 IN PREFIX INS (1:ON/0:OFF) : ON	Regional ISDN providers may use the Local Area Prefix code for special services. In cases where the code is not provided in the incoming call SETUP message, the system can insert the Local Prefix and Area code in SMDR, LNR, displays, etc.	0: OFF 1: ON	OFF
13	01-02 OUT PREFIX INS (1:ON/0:OFF) : ON	Regional ISDN providers may use the Local Area Prefix code for special services. The system can insert the Local Prefix in the outgoing call SETUP message.	0: OFF 1: ON	ON
14	01-02 INT ACCESS CODE ….	When an incoming call includes the international Country code in the ISDN call SETUP message, the Country code will be included in the station display. To include the Country code, Incoming Prefix insertion (button 12 above) and CLI Display for the station (**PGM CODE** 114-btn 1) must be On.	4 digits	

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
15	01-02 AREA CODE ……	Regional ISDN providers may use the Local Prefix and Area codes for special services. The system will insert this Local Area Code in the call SETUP messages defined under button 13 above.	MAX 6 Digits	-
16	01-02 PREFIX CODE ….	Regional ISDN providers may use the Local Prefix and Area codes for special services. The system will insert this Local Prefix Code in the call SETUP messages defined under button 13 above.	MAX 4 Digits	-
17	01-02 CLI TRANSIT (1:ORI/0:CFW):CFW	When the system must send CLI to the ISDN for an off-net call, the CLI can be either the original caller's CLI or the CLI of the Off-net forwarding/transferring station.	0:CFW 1:ORI	CFW
18	01-02 PRESERVE NAME (1:ON/0:OFF):NET	For DID lines, the CLI is normally displayed only during ringing. If enabled here, the CLI will be displayed for the entire call duration.	0: OFF 1: ON	OFF
19	01-02 REDIRECT INFO NO SERVICE (0)	When the system need to send Redirecting number to the ISDN for an off-net call, the Redirecting number can be either the original caller's CLI or the CLI of the Off-net forwarding/transferring station. If it is no service then system will not send this information. If it is OGR CLI(original CLI) then system will send original CLI that is received from incoming CO line. If it is CFW CLI then system will send redirecting CLI that is CLI for call off-net call forwarded station.	0: NO SERVICE 1: ORG CLI 2: CFW CLI	NO SERVICE

Table 2.3.5.2-4 STATION/CO LINE COS TOLL RESTRICTIONS

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 1	No Restriction	No Restriction	No Restriction	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 2	Exception Table A governs the dialing	Exception Table A governs the dialing	No Restriction	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 3	Exception Table B governs the dialing	No Restriction	Exception Table B governs the dialing	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 4	Exception Table A&B governs the dialing	Exception Table A governs the dialing	Exception Table B governs the dialing	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 5	Local Call only (LD Code, 1st digit "0" or "1") and Table C	Local Call only, (LD Code, 1st digit "0" or "1") and Table C	Local Call only (LD Code, 1st digit "0") and Table C	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 6	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD Code/Counter) and Table C	No Restriction
STA COS 7	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 8	Exception Table D governs the dialing	Exception Table D governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 9	Exception Table E governs the dialing	Exception Table E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 10	Exception Table D&E governs the dialing	Exception Table D&E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 11	Exception Table A&B and D&E governs the dialing	Exception Table A&B and D&E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction

Table 2.3.5.2-5 CALL METERING FUNCTION

ENTRY	CALL METERING TYPE
00	- None
01	- 50 Hz
02	- 12 KHz
03	- 16 KHz
04	- Singular Polarity Reverse (SPR)
05	- Plural Polarity Reverse (PPR)
06	- No Polarity Reverse (NPR)

2.3.5.3 CO/IP Ring Assignment -PGM Codes 144-

Each CO/IP line is assigned to signal a station or group for an incoming call (Ring). Separate ring assignments are made for Day, Night, and Timed Ring modes. When assigned to ring to a VSF announcement, the call can be dropped automatically after the assigned announcement by entering '#' after the VSF announcement number.

When CO Lines are programmed to Ring an external AA/VM, VSF, VMIM or Feature Server Group as an Automated Attendant, the Ring signal can be on an immediate or delayed basis allowing other stations/groups to be assigned Ring and answer prior to signaling the AA. The delay is defined in seconds from 00 to 30.

PROCEDURE:

CO RING ASSIGNMENT **ENTER COL RANGE**	1. Press the **[PGM]** button and dial 144.
01-02 PRESS KEY **DAY NIGHT TIMED-R**	Use the dial-pad to enter a CO Line range. For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the IPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600)..
	Press the desired Flex button: Button 1: Day Ring Button 2: Night Ring Button 3: Timed Ring

	Use the dial pad to select the destination type: Dial 1: Station Dial 2: Hunt Group Dial 3: VSF Dial 4: AA Ring Time
	Use the dial pad to enter a value for the selected destination type. For: Dial 1: Enter a station range (enter the same station number twice to assign a single station) and the ring delay if any, in ring cycles (0~9). Dial 2: Enter a hunt group number. Dial 3: Enter the VSF announcement number and, if desired '#' to drop the call after the announcement. Dial 4: For AA Ring Time, enter the desired delay from 00 to 30 seconds.
	Press the **[SAVE]** button to store the data entry.

2.3.5.4 DID Service Attributes -PGM Code 145-

PSTN DID lines can be assigned the type of "Start" signaling and treatment of any received digits. Digits can be used "as is" to route the call within the system, digits can be converted and used to route the call, or digits can be converted to a Table index to determine the call routing based on the assigned conversion method, see Table 2.3.9.7-2 (**PGM CODE** 231).

PROCEDURE:	
DID ATTRIBUTES **ENTER COL RANGE**	1. Press the **[PGM]** button and dial 145.
01-02 DID ATTRIBUTES **PRESS FLEX_KEY(1–4)**	Use the dial-pad to enter the DID Line range. For a single DID Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.4-1 **DISPLAY**	Select the desired Flex button, refer to Table 2.3.5.4-1.
	Use the dial-pad to enter the desired value for the selected Attribute, refer to Table 2.3.5.4-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.4-1 DID LINE ATTRIBUTES (PGM 145)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**01-02 SIGNAL TYPE (1-3)** **(1-3): WINK (2)**	Assigns the type of DID start signaling, Immediate, Wink or Delayed.	1: Immediate 2: Wink 3: Delayed	Wink

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	01-02 DID CONV TYPE (0 – 2) : 0	The received DID digits can be treated to determine call routing, simple conversion (**PGM CODE** 230), "use as is" (no treatment), or modify using look-up Table (**PGM CODE** 231).	0: Convert 1: Use as is 2: Look-up	0
3	01-02 DID DGT RCV NO 3 (2 - 4)	Number of digits expected from the PSTN DID circuit.	2~4	3
4	01-02 DID DGT MASK ****	DID digit modification sequence: "#" deletes the digit, "*" accepts the digit as is, a digit (0~9) replaces the digit. The modification is based on the position of the digit (1~4) in the received number.	(0~9, *, #)	#***

2.3.5.5 DISA Service Attributes -PGM Code 146-

DISA Service can be enabled on CO lines based on the system operation mode (Day, Night, and Timed). DISA calls may be routed to dial tone and await user dialing (simple routing) or through a multi-layered Audio Text menu assigning a VSF AA Announcement/Customer Call Route (CCR) Table Index. The system can be instructed to disconnect after the announcement or follow the CCR Table routing with a user-recorded announcement requesting specific inputs from the user.

PROCEDURE:	
DISA ATTRIBUTES **ENTER COL RANGE**	1. Press the **[PGM]** button and dial 146.
01-02 DISA ATTRIBUTE **F1:DAY F2:NIGHT F3:TIMED**	Use the dial-pad to enter the CO Line range. For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
001-002 DISA ATTRIBUTE **DAY SERVICE 00 (00 – 71)**	Select the desired Flex button: Button 1: Day Button 2: Night Button 3: Timed
	Use the dial-pad to enter the desired VSF AA Announcement, (00: disabled, 01~70 CCR Table index **PGM CODE** 228, or 71: await user digits). Enter '#' after the entry to include a "drop after announcement instruction".
	Press the **[SAVE]** button to store the data entry.

2.3.5.6 CO Line Preset Forward Attributes -PGM Code 147-

The CO Line Preset Forward feature enables a CO line to initially ring at multiple stations and forward to a pre-determined destination (**PGM CODE** 204). The destination can be a station, Voice Mailbox, ACD group, or Hunt group. Each CO line has a Preset Forward Timer. Each CO line also can be assigned a VMID (Voice Mail Id) to allow sending specific VM digits when a CO line forwards to an external VM group.

PROCEDURE:	
CO PRESET FWD ATT **ENTER COL RANGE**	1. Press the **[PGM]** button and dial 147.
01-02 CO PRE-FWD **PRESS FLEX_KEY(1–3)**	Use the dial-pad to enter the CO Line range. For a single DID Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the IPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.6-1 **DISPLAY**	Select the desired Flex button, refer to Table 2.3.5.6-1.
	Use the dial-pad to enter the desired value for the selected Attribute, refer to Table 2.3.5.6-1
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.6-1 CO LINE PRESET FORWARD ATTRIBUTES (PGM 147)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**01-02 PRESET FWD TMR** **(00-20 SEC) : 00**	An incoming call, which remains unanswered for this timer, is routed to the pre-determined Ring Table Index, **PGM CODE** 147-btn 2.	00-20 Sec	00
2	**01-02 RING TBL INDEX** **INDEX : NOT ASSIGNED**	If an incoming call remains unanswered after the Preset Fwd time the call is routed as defined in the ICLID Ring Assignment table bin entered here, refer to **PGM CODE** 204.	001-250	..
3	**01-02 VMID NUMBER** **….**	Each CO/IP line can be assigned a VMID (Voice Mail Id) that is sent to the VM group to identify the desired Mailbox for the CO/IP line.	0000~9999	..

2.3.5.7 NA ISDN Line Attributes -PGM Code 150-

To comply with the North American ISDN standards, certain attributes must be defined for the system. These include Directory (telephone) Number and Service Profile (SPID) for the device. Note that this programming is required only for "Country Code" 1, USA installations.

PROCEDURE:	
COL NA ISDN ATT ENTER CO RANGE	1. Press the **[PGM]** button and dial 150.
01-02 COL NA ISDN ATT PRESS FLEX KEY (1-6)	Use the dial-pad to enter a CO Line range. For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the IPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.7-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.5.7-1.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.5.7-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.7-1 NA ISDN ATTRIBUTES (PGM 150)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	001-002 TYPE OF PX(1-4) NI1 (1)	The type of PSTN determines several specifics of the protocol and is required for proper operation.	1: NI 1 2: NI 2 3: 5 ESS 4: NORTEL	1
2	001-002 SPID NUMBER …….	The Service Profile Identifier (SPID) is a number assigned to a fully initializing ISDN terminal and enables the Stored Program Control switching System (SPCS) to identify the ISDN terminal at layer 3 of the D-channel signaling protocol. The SPID is a free-formatted numeric string composed of 9 to 20 numeric {0-9} International Alphabet (IA5) characters. The SPID uniquely identifies a particular set of subscription parameters assigned to a TSP.	9~20 digits	-
3	001-002 DN NUMBER …….	Initializing terminals are required to store a 7-digit DN in order to perform the compatibility checking procedures that are part of call termination.	20 digits	-
4	001-002 EKTS MODE (1:EKTS/0:NONE) : EKTS	The EKTS (Electronic Key Telephone Service) terminal permits a user to operate those features that are specific to EKTS, as well as voice features that may function distinctly in the EKTS environment. EKTS allows a DN to be shared by more than one terminal, on the same or on different interfaces.	1: EKTS 0: None	EKTS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
5	001-002 TYPE 7_8(0-5) UNKNOWN (0)	ISDN CALLED NO is made with the International format, National format, Network format, Subscriber format, or Abbreviated format when user dials less than 10 digits.	0: Unknown 1: International 2: National 3.Network 4: Subscriber 5: Abbreviated	0
6	001-002 TYPE FOR 10_11 UNKNOWN (0)	ISDN CALLED NO is constructed with the International format, National format, Network format, Subscriber format, or Abbreviated format when user the dials more than 10 digits.	0: Unknown 1: International 2: National 3.Network 4: Subscriber 5: Abbreviated	0

2.3.5.8 ISDN CO Line Attributes -PGM Code 151-

ISDN standards require that the ISDN terminating device, in this case the iPECS system, include various “adjustable” timers and counters as described below.

PROCEDURE:	
COL ISDN ATT ENTER CO RANGE	1. Press the **[PGM]** button and dial 151.
01-02 COL ISDN ATT PRESS FLEX KEY (01-16)	Use the dial-pad to enter a CO Line range. For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.8-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.5.8-1.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.5.8-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.8-1 ISDN CO LINE ATTRIBUTES (PGM 151)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	001-002 T200 (1- 5) (1-5) : 1 (sec)	The terminal must support one T200 timer for each data link supported.	1~5 (seconds)	1
2	001-002 T201 (1- 5) (1-5) : 1 (sec)	The minimum time between TEI ID check messages.	1~5 (seconds)	1
3	001-002 T202(1-5) (1-5) : 2 (sec)	When the terminal transmits a TEI Identify Request message, it must provide one T202 timer for each logical link supported.	1~5 (seconds)	2

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
4	001-002 T203 (05 – 15) (05-15) : 10 (sec)	If the terminal initiates the link monitoring function, it must provide one T203 timer for each logical link supported. T203 defines the maximum time between message exchanges.	5~15 (seconds)	10
5	001-002 T204 (05 – 15) (05-15) : 10 (sec)	The T204 timer defines the minimum time between transmissions of XID messages.	5~15 (seconds)	10
6	001-002 T302 (10- 30) (10-30) : 15 (sec)	In the Overlap dial mode, when the system receives incomplete dialing information from the ISDN, the system will wait the T302 timer duration for the additional digits. At time-out of this timer, the call will be disconnected.	10~30 (seconds)	15
7	001-002 T303 (01- 10) (01-10) : 04 (sec)	T303 establishes the time Interval for a response after sending a call setup message.	1~10 (seconds)	4
8	001-002 T305 (10- 60) (10-60) : 30 (sec)	T305 establishes the Interval for a Released signal after receiving a Disconnect message.	10~60 (seconds)	30
9	001-002 T308 (01- 10) (01-10) : 04 (sec)	T308 establishes the Interval for a Released Ack signal after sending a release message.	1~10 (seconds)	4
10	001-002 T309 (001-100) (001-100) : 90 (sec)	Optional state timer.	1~100 (seconds)	90
11	001-002 T310 (10- 60) (10-60) : 40 (sec)	Timer used in accepting Received signal	10~60 (seconds)	40
12	001-002 N200 (1- 5) (1-5) : 3	The terminal shall provide one N200 counter for each logical link supported. The default value of this counter shall be 3.	1~5	3
13	001-002 N201 (250- 300) (250~300) : 260 (byte)	The N201 counter sets the maximum number of Octets in the ISDN information field.	250~300 (bytes)	260
14	001-002 N202 (1- 5) (1-5) :3	If the terminal transmits a TEI Identify Request message (to request assignment of a TEI), the terminal shall provide one N202 counter for each logical link that it supports.	1~5	3
15	001-002 N204 (1- 5) (1-5) : 1	The N204 counter establishes the maximum number of XID re-transmissions from the terminal.	1~5	1
16	001-002 K_VALUE (1-5) : 1	The terminal shall provide one K counter for each logical link supported.	1~5	1

2.3.5.9 T1 Line Timers -PGM Code 152-

North American T1 standards require that the T1 terminating device, in this case the iPECS system, include various "adjustable" timers and counters as described below.

PROCEDURE:	
COL T1 ATT ENTER CO RANGE	1. Press the **[PGM]** button and dial 152.
001-002 COL T1 ATT PRESS FLEX KEY (01-13)	Use the dial-pad to enter a CO Line range (Ex. 001-002). For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.9-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.5.9-1.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.5.9-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.9-1 T1 LINE TIMERS (PGM 152)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	001-002 PAUSE (1-9) : 2 (sec)	A timed pause may be included in a Speed Dial number, in which case, the pause time is defined by this entry. Not currently implemented.	1~9 (seconds)	2
2	001-002 RLS GRD (01-60) : 20 (100ms)	The Rls Grd (Guard) timer defines the length of time the system will maintain a Line as busy after the call has been terminated to assure the PSTN has sufficient time to 'clear down' the circuit. Not currently implemented.	01~60 (100 ms)	20
3	001-002 DT DELAY (02-50) : 10 (100ms)	The DT (Dial tone) Delay timer defines the duration that dial tone must be received for DT recognition. Not currently implemented.	02~50 (100 ms)	10
4	001-002 INTER DGT (15-30) : 15 (20ms)	The Inter Digit timer defines the duration between digit transmissions. Not currently implemented.	15~30 (20 ms)	15
5	001-002 WINK (07-15) : 10 (20ms)	For TIE or DID Lines the Wink timer defines the length of time the 'wink' (T1 TIE line circuit reversal) will last.	7~15 (20 ms)	10
6	001-002 OP RATE (0- 3) 60-40(10pps) (0)	For Pulse signaling, defines the duration and make/break ratio of each pulse.	0: 60-40(10pps) 1: 66-33(10pps) 2: 60-40(20pps) 3: 66-33(20pps)	60-40(10pps)
7	001-002 SEZ DTC (20ms) (000-127) : 003	This timer defines the length of a valid 'line seizure' signal.	0~127 (20 ms)	3
8	001-002 RELEASE (000-127) : 007 (20ms)	For Ground Start Lines, defines the minimum length of time ground will not be applied to the TIP side from the PSTN.	0~127 (20 ms)	7

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
9	001-002 IASG TY (1:DTMF/0:PULSE) : DTMF	Incoming Address Signaling Type defines the type of signaling (DTMF or Pulse) expected.	0~1	DTMF
10	001-002 RING DTC (2-9) : 2 (100ms)	The Ring DTC (detect) timer defines the minimum acceptable length of the Ring-on time during a ring cycle.	2~9 (100 ms)	2
11	001-002 RING STOP (10-60) : 60 (100ms)	The Ring Stop timer defines the maximum Ring-off time during a ring cycle.	10~60 (100 ms)	60
12	001-002 COLLECT DGT (1-6) : 3	Collect DGT (digits) defines the number of digits expected on a DID line.	1~6	3
13	001-002 STORE TIME (01~15) : 15 (1sec)	For DID lines, this timer defines the maximum delay between incoming DID digits.	1~15 (second)	3

2.3.5.10 DCOB CO Attribute -PGM Code 153-

The DCOB Attributes defines various characteristics of the E1/PRI module when employing R2 signaling.

PROCEDURE:

DCOB COLINE ATT ENTER CO RANGE	1. Press the **[PGM]** button and dial 153.
001-002 DCOB CO ATT PRESS FLEX KEY (1-5)	Use the dial-pad to enter a CO Line range (Ex. 001-002). For a single CO Line, enter the same number twice. For the iPECS-Micro the acceptable range is 01~-05, for the iPECS-50 and MFIM100 the acceptable range is 01~42, for the MFIM300 the acceptable range is 001~200 and for the MFIM600/1200 the range is 001~400(600).
See Table 2.3.5.10-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.5.10-1.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.5.10-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.5.10-1 DCOB CO ATTRIBUTE (PGM 153)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	001-002 LINE STATUS (1-9) : 6	Send Line status information to PX when a call routed to subscriber before the called party is ringing.	1~9	6
2	001-002 DNIS SERVICE (1:ON/0:OFF) : OFF	In R2, determine whether system will send caller information to PX or not.	0: OFF 1: ON	OFF
3	001-002 NO OF CLI DGTS (01-15) : 10	In R2, Gateway request CLI Digit to PX.	01~15	10
4	001-002 DCOB TYPE (0-2) : 2	According to this type, the line can be restricted to seize CO line for outgoing call.	0~2	2
5	001-002 CALL CATEGORY (1-9) : 1	In R2 signaling, the category signal used by the iPECS is defined here.	1~9	1

2.3.6 SYSTEM DATA – PGM CODES 160 to 182 –

2.3.6.1 System Attributes I & II –PGM Codes 160 to 161–

There are two (2) System Attributes programs to define settings that affect system-wide features and functions. Generally, the entry will turn the feature ON (enable) or OFF (disable). Refer to Table 2.3.6.1-1 and Table 2.3.6.1-2 for a description of the Attributes, LCD displays and the data entries required.

PROCEDURE:

SYSTEM ATTRIBUTES 1 **PRESS FLEX KEY (01-20)**	1. Press the **[PGM]** button and dial: 160 for System Attributes I 161 for System Attributes II.
See Table 2.3.6.1-1 & -2 **DISPLAY**	Press the Flex button for the desired Attribute, refer to Table 2.3.6.1-1 & Table 2.3.6.1-2.
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.6.1-1 to Table 2.3.6.1-2.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.6.1-1 SYSTEM ATTRIBUTES I (PGM 160)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ATD CALL QUE RB TONE (1:RBT/0:MOH): MOH	When calling a busy attendant, the system will provide either ring-back tone or MOH. If MOH is selected, the source must be defined in **PGM CODE** 171.	1: RB tone 0: MOH	MOH
2	CAMP-ON RBT/MOH (1:RBT/0:MOH) : MOH	When Camp-On is used, the calling station will receive either ring-back tone or MOH. If MOH is selected, the source must be defined in **PGM CODE** 171.	1: RB tone 0: MOH	MOH
3	CO DIAL TONE DETECT (1 : ON/ 0 : OFF) : OFF	The system can use dial-tone detection or a timed pause for Speed Dial numbers that contain a Pause.	0: OFF 1: ON	OFF
4	CO LINE CHOICE (0:RR/1:LAST/2:FIRST): 0	CO Lines are selected by the system from groups using either the LAST used, ROUND robin method or FIRST line in the group.	1: LAST 0: ROUND 2: FIRST	LAST
5	DISA RETRY COUNT (1 –9): 3	A DISA user is allowed to retry erroneous authentication code entries. This entry sets the number of retries before the system disconnects.	1~9	3
6	EXTERNAL NIGHT RING (1 : ON/ 0 : OFF) : OFF	CO/IP calls, which are assigned UNA, can activate the Loud Bell Contact. An incoming call, received while in Night, will activate the contact.	0: OFF 1: ON	OFF
7	HOLD PREFERENCE (1: SYS/ 0: EXC) : SYS	A single depression of the **[HOLD]** button places the call on the preferred hold, System or Exclusive.	1: System 0: Excl	SYS
8	PRINT LCR CONV DIGIT (1 : LCR/ 0 : USER) : LCR	SMDR will output the number dialed by either the system's LCR or the user.	1: LCR 0: User	LCR

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
9	ATD CALL QUE AVAILABLE (1:ON/0:OFF) : ON	The system can be configured to queue incoming calls to a busy Attendant.	0: OFF 1: ON	OFF
10	USE PGM_0 IN ALL ATTD (1 : ON/ 0 : OFF) : OFF	This field allows Main attendants access to all Attendant functions including System Attendant features and programming.	0: OFF 1: ON	OFF
11	OFFNET PROMPT USAGE (1 : ON/ 0 : OFF) : OFF	When a call is routed to a destination external to the iPECS, the Off Net routing prompt can be played. Not available in US version.	0: OFF 1: ON	OFF
12	CO-TO-CO UC TMR EXTEND (1:ON/0:OFF) : OFF	When an Unsupervised Conference is established with DISA, Off-Net Fwd, etc, the Unsupervised Conference timer (**PGM CODE** 182-btn 5 determines the allowed duration of the call. If enabled here, the user may dial '#' to extend the allowed duration.	0: OFF 1: ON	OFF
13	DISCOVERY MANAGER PRINT (1:ON/0:OFF) : OFF	When the optional ACD Message events are desired, the system must be enabled to send ACD event messages.	1: ON 0: OFF	OFF
14	CALL LOG LIST NUM (15-50) : 15	The Call Log that saves the Outgoing call, Received call, or Lost call information can be displayed by pressing Call Log Display Button. The maximum size of the Call Log per station is defined here.	15~50	15
15	REPEAT DTMF TONE (1:ON/0:OFF) : OFF	When enabled, the system will provide DTMF repeat tone to the caller's station.	0: OFF 1: ON	ON
16	FAC RETRY COUNT (1-9) : 3	If a CO's have "CO/IP group Authorization" set to ON in PGM141, 8th or the Stations have "Station Account" set to ON in PGM112, 19th then a valid authorization code must be entered to make an external CO call. When user fails to enter a valid Authorization code in the number of attempts assigned in this field, the station is disconnected or the Station COS is changed to COS 7. If the COS 7 WHEN AUTH FAIL, PGM 161, 17th is on then the station COS is changed to COS 7 otherwise the station is disconnected. When the station COS is changed COS 7, the user must employ COS Restore in Station User **PGM CODE** 2 to return the station to the normal COS.	1 ~ 9	3
17	CONFROOM CO TEL NUMBER CO TEL:..	ISDN DID number an external party must dial to enter a Conference room. Phontage or UCS Client must pre-establish the Conf Room.	8 digits	
18	MFIM DIFFSERV TAG(00-63): 04	MFIM Diff-Serv pretag value.	00-63	04
19	UPGRADE MODE (1:FTP/0:TFTP): FTP	Upgrade transfer mode from MFIM to iPECS gateways.	1: FTP 0: TFTP	FTP
20	TRANSFER TONE (1:RBT/0:MOH): RBT	When a CO call is transferred to a busy extension, Ring Back Tone or Music On Hold will be played to the CO Line	1: RBT 0: MOH	RBT

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
21	CONF WARN TONE (1:ON/0:OFF) : OFF	As new members join a conference room, the system provides warning tone to conference members.	0: OFF 1: ON	ON
22	TLS for WEB (1:ON/0:OFF) : OFF	Enables Transport Layer Security (TLS for Web access.	0: OFF 1: ON	OFF
23	DUMMY DIAL TONE (1:ON/0:OFF) : OFF	When a CO/IP line does not provide dial tone, the system can provide dummy dial tone to the user.	0: OFF 1: ON	OFF
24	SIP STA MODE (1:PTP/0:RTD): RTD	SIP phones may set-up a point-to-point RTP connection (PTP) or to assure a controlled connection, RTP can be routed via a VoIP channel (RTD).	0: RTD 1: PTP	RTD

Table 2.3.6.1-2 SYSTEM ATTRIBUTES II (PGM 161)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	OFF-HOOK RING TYPE (1:MUTE/0:BURST) : MUTE	Off-hook ring can be a single tone burst or muted normal ring.	0: BURST 1: MUTE	MUTE
2	PAGE WARN TONE (1 : ON/ 0: OFF) : ON	A warning tone can be sent prior to a page announcement.	0: OFF 1: ON	ON
3	AUTOMATIC PRIVACY (1 : ON/ 0: OFF) : ON	Automatic Privacy can be disabled, allowing stations to join an active CO/IP call. A warning tone can be provided, see button 4 below.	0: OFF 1: ON	ON
4	PRIVACY WARN TONE (1 : ON/ 0: OFF) : ON	If desired, warning tone can be provided when privacy is overridden.	0: OFF 1: ON	ON
5	ACD PRINT ENABLE (1 : ON/ 0: OFF) : OFF	ACD statistics can be periodically sent to the assigned serial port. To provide periodic reports, this entry must be ON.	0: OFF 1: ON	OFF
6	ACD PRINT TIMER(10sec) (001 –255) : 001	This entry defines the time, in 10-second increments, between the periodic ACD reports.	001~255 (10 sec)	010
7	CLEAR ACD DATABASE (1 : ON/ 0: OFF) : OFF	When a periodic report is sent, the ACD database can be cleared automatically, if “ON”.	0: OFF 1: ON	OFF
8	OVERRIDE 1ST CO GRP (1: ON/0: OFF) ; ON	When a user dials ‘9’, the system can search all CO/IP Groups for the first available CO/IP line.	1: ON 0: OFF	ON
9	BASE CODEC TYPE (0-2): G711(0)	The default codec can be defined as G.711 or G.723.1 for decreased bandwidth needs. The selected codec will be used on all internal communications as well as for remote iPECS devices.	0: G711 1: G723.1	G711
10	G711 PACKETIZATION(1ms) (000-255) : 020	The G.711 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.711 codec is used.	0-250	020
11	G723 PACKETIZATION(1ms) (000-255) : 030	The G.723.1 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.723.1 codec is used.	0-255	030

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
12	NETWORK TIME/DATE (1 : ON/ 0: OFF) : OFF	The system can use ISDN Network time or NTP to synchronize time with the ISDN or data network. To disable time sync, use OFF. ISDN sync is not available in USA version.	0: OFF 1: ISDN 2: NTP	OFF
13	INCOMING TOLL CHK (1:ON/0:OFF) : OFF	The system can invoke COS dialing restrictions when a user dials while connected to incoming call.	0: OFF 1: ON	ON
14	WEB SERVER PORT (00001-65535) : 00080	This field determines the TCP port employed to access the system WEB server.	00001~ 65535	00080
15	WEB PWD ENCRYPT (1:ON/0:OFF) : OFF	The Web Admin password can be encrypted for security using RC-6 block encryption A Java VM must be installed on the user's PC.	0: OFF 1: ON	OFF
16	OLD AUTH CODE USAGE (1:ON/0:OFF) : ON	System Authorization codes are entered by the user as "*" and the code (ON) or "*"+ the Auth code index and the code (OFF).	0: OFF 1: ON	ON
17	COS 7 WHEN AUTH FAIL (1:ON/0:OFF) : ON	If user fails to enter a valid Authorization code in the number of attempts assigned in FAC RETRY COUNT, **PGM CODE** 160-btn 16, the station is disconnected or the Station COS is changed to COS 7. In the later case, the user must employ COS Restore in Station User **PGM CODE** 2 to return the station to the normal COS.	0: OFF 1: ON	OFF
18	UNIFIED SERIAL MSG (1:ON/0:OFF) : OFF	System Integration Messages are sent out the defined serial or TCP channel, see AIM manual.	0: OFF 1: ON	OFF
19	RECORD WARNING TONE (1:ON/0:OFF) : OFF	When call recording is active, a tone can be sent to all connected parties to indicate the conversation is being recorded.	0: OFF 1: ON	ON
20	CPU REDUNDANCY USE (1:ON/0:OFF) : OFF	When redundancy is employed, this field informs the master MFIM that a redundant MFIM is available.	0: OFF 1: ON	OFF
21	CHG ACT BY POWER FAIL (1:ON/0:OFF) : OFF	When power fails, the active MFIM is changed to the standby mode and the standby MFIM becomes active.	0: OFF 1: ON	OFF
22	SMS CENTER NUMBER	When the PSTN will be used to send SMS, the phone number of the Short Message Service Center must be entered.	23 digits	
23	SMS PROTOCOL (0-5) : NONE (0)	The Short Message Service Protocol must be selected to support SMS: 0; No PSTN SMS support, 1: ETSI-P1 2: ETSI-P2 3: KT-LivingNet 4: SIP-Text 5: SIP-XML 6:KT-IP-PBX 7:SKN-IP-PBX	0 ~ 7	NONE
24	SYSTEM 2 ADDED ATTR PRESS FLEX KEY (1-3)	Select btn 24 to access added attributes 1~3.	FLEX 1 ~ FLEX 3	
24-1	G722 PACKETIZATION(1ms) (10 - 30) : 20	The G.722 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.722 codec is used.	10/20/30 msec	20
24-2	NOT USED	This filed is used only for KOREA.		

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
24-3	SMS CENTER CLI	When the CO/IP will be used to receive SMS, the Caller Id expected from the Short Msg Service Center must be defined.	23 digits	
24-4	TRANSIT-OUT SECURITY (1:ON/0:OFF) : ON	Check IP address for transit-out in the master system, if it is not valid IP address then it will be denied.	0:OFF 1:ON	ON
24-5	EMR CALL ATD NOTIFY (1:ON/0:OFF) :	Provide notification to attendant when user dial emergency number	0:OFF 1:ON	ON
24-6	3WAY CONF PREFERENCE (1:MCIM/0:LOCAL) : MCIM	Use MCIM to make 3 way conference if it is MCIM, otherwise conference will be done on each member.	0:LOCAL 1:MCIM	MCIM
24-7	FIRST DIGIT * IN SPD DISPLAY SECURITY (0)	If it is '0' then the first '*' in speed will be used for display security otherwise DTMF '*' will be send.	0:DISPLAY SECURITY 1:DIGIT *	0: DISPLAY SECURITY
24-8	SIP POUND USAGE (1:ON/0:OFF) : OFF	ON: Send digit '#' when user press '#' OFF: The '#' is used for sending complete.	0:OFF 1:ON	OFF
24-9	VSF/VMIM SMTP PORT (00001~65535) : 00025	SMTP port of VSF / VMIM	00001~65535	00025
24-10	ICM BUSY SVC (1:INTR/0:OHVO): OHVO	If ICM busy, choice OHVO or Intrusion.	0:OHVO 1:INTR	0
24-11	AUTO SAVE NEW MEG (1:ON/0:OFF) : OFF	If it's ON, save new message automatically.	0:OFF 1:ON	OFF

2.3.6.2 System Password -PGM Code 162-

Access to the system database and maintenance functions can be protected by passwords up to twelve (12) digits. Three passwords can be defined, User, Admin and Maintenance. The Maintenance password has full and unlimited access to the database and maintenance functions of the system. The User and Admin password have access to database items defined in Web Admin. Note there are no default passwords.

PROCEDURE:

SYSTEM PASSWORD PRESS FLEX KEY (1-3)	1. Press the **[PGM]** button and dial 162.
ADMIN PASSWORD	Press the Flex button for the desired password: For the Admin password press Flex button 1. For the Maintenance password press Flex button 2. For the User password press Flex button 3.
MAINT PASSWORD	Enter the desired password, up to 12 digits. To erase a password press the **[SPEED]** button.
USER PASSWORD	
	Press the **[SAVE]** button to store the password entry.

Table 2.3.6.2-1 System Passwords

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	USER PASSWORD ……	User password, configurable database access in Web admin and cannot access Keyset admin.	12 digits	none
2	ADMIN PASSWORD ……	Admin password, configurable database access in Web Admin can access Keyset Admin.	12 digits	none
3	MAINT PASSWORD ……	Maintenance password, full and unlimited access to database and maintenance functions.	12 digits	none

2.3.6.3 Alarm Attributes –PGM Code 163–

The system can monitor an external contact. This contact is most often employed as an Alarm indicator or Doorbell. The Alarm attributes define the operation of the external contact. The Alarm Signal sent to assigned stations can be repeating or a single burst, the former is often desired. For the Doorbell, a single tone is sent each time the contact activates. Refer to Table 2.3.6.3-1 for a description of the features, the data entries required and LCD displays for each attribute.

PROCEDURE:	
SYSTEM ALARM ATT PRESS FLEX KEY (1-4)	1. Press the **[PGM]** button and dial 163.
Refer to Table 2.3.6.3-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.6.3-1.
	Use the dial-pad to enter desired data for the attribute, refer to Table 2.3.6.3-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.6.3-1 ALARM ATTRIBUTES (PGM 163)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ALARM ENABLE (1:ON/0:OFF) : OFF	This parameter enables the external contact monitoring circuitry.	0: OFF 1: ON	OFF
2	ALARM CONTACT TYPE (1:CLOSE/0:OPEN) : CLOSE	This parameter establishes the contact state that will activate the Alarm, close or open.	0: Open 1: Close	CLOSE
3	ALARM/DOORBELL MODE (1:ALARM/0:BELL): ALARM	The contact can be treated to function as a doorbell instead of an alarm.	0: Bell 1: Alarm	ALARM
4	ALARM SIGNAL MODE (1:RPT/0:ONCE) : RPT	The assigned stations will receive a Repeating signal or single burst (ONCE) of alarm tone.	0: Once 1: Repeat	RPT

2.3.6.4 Attendant Assignment -PGM Code 164-

A maximum of four (4) Attendants can be assigned with the iPECS-Micro, iPECS-50 and MFIM100 or five (5) with other MFIMs. One is the System Attendant and remaining are the Main Attendants. The System Attendant has higher priority in call handling and system management functions with access to PGM 0. As a default, the System Attendant is assigned Station 100. Main Attendants are not assigned by default.

PROCEDURE:	
ATTENDANT ASSIGNMENT **100 . . . .**	1. Press the **[PGM]** button and dial 164.
ATTENDANT ASSIGNMENT **100 . . . .**	Select the desired button: Button 1: System Attendant Button 2: Main Attendants.
	Use the dial-pad to enter desired station numbers for the System and Main Attendants. Use the **[SPEED]** button to erase an entry and the **[VOL UP]/[VOL DOWN]** button to scroll through the Main Attendants.
	Press the **[SAVE]** button to store the Attendant assignment entry.

2.3.6.5 Multi-cast RTP/RTCP Ports -PGM Code 165-

Multi-cast is employed by the system to send BGM, MOH, paging and Push-To-Talk packets. Employing a single multi-cast packet reduces the overall LAN traffic. In some cases, specifically when multiple systems are connected to the same default gateway (router) it may be advantageous to define different ports for each system. For systems employing the iPECS-Micro, there are 33 RTP (Real-time protocol) and 33 RTCP (Real-time Control protocol), For iPECS-50 or MFIM100, there are 36 RTP (Real-time protocol) and 36 RTCP (Real-time Control protocol) ports that are defined. For systems employing other MFIM models, there are 54 RTP (Real-time protocol) and 54 RTCP (Real-time Control protocol) ports that are defined.

PROCEDURE:	
MULTICAST RTP/RTCP **PRESS FLEX KEY (1-2)**	1. Press the **[PGM]** button and dial 165.
MULTICAST RTP **PRESS FLEX_KEY (01-24)**	Press Flex button 1 for RTP ports or Flex button 2 for RTCP ports.
	Press the desired Flex button, refer to or . The 24 Flex buttons are used to assign ports for the first 24 RTP/RTCP functions. To assign port numbers for additional RTP/RTCP functions, use the **[VOL UP]/[VOL DOWN]** buttons.
Refer to or -2 **DISPLAY**	Use the dial-pad to enter desired data for the port, refer to or .
	Press the **[SAVE]** button to store the Attendant assignments data entry.

Table 2.3.6.5-1 MULTI-CAST RTP/RTCP PORTS (PGM 165)

(iPECS-Micro)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	M-CAST RTP BGM INT 8100 (8101)	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
2	M-CAST RTP BGM EXT1 8102 (8103)	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
3	M-CAST CAST RTP BGM EXT2 8104 (8105)	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
4	M-CAST RTPI-PAGE1 8106 (8107)	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
5	M-CAST RTP I-PAGE 2 8108 (8109)	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
6	M-CAST CAST RTP I-PAGE 3 8110 (8111)	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
7	MULTICAST RTP I-PAGE 4 8112 (8113)	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
8	MULTICAST RTP I-PAGE 5 8114 (8115)	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
9	MULTICAST RTP I-PAGE 6 8116 (8117)	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
10	MULTICAST RTP) I-PAGE 7 8118 (8119)	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
11	MULTICAST RTP I-PAGE 8 8120 (8121)	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
12	MULTICAST RTP I-PAGE 9 8122 (8123)	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
13	MULTICAST RTP IPAGE 10 8124 (8125)	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
14	MULTICAST RTP I-PAGE ALL 8126 (8127)	RTP and RTCP ports for Internal All Call Page.	0000-9999	8126 (8127)
15	MULTICAST RTP PAGEALL 8134 (8135)	RTP and RTCP ports for All Call Page.	0000-9999	8134 (8135)
16	M-CAST RTP PTT 1 8136 (8137)	RTP and RTCP ports for PTT group 1.	0000-9999	8136 (8137)
17	M-CAST RTP PTT 2 8138 (8139)	RTP and RTCP ports for PTT group 2.	0000-9999	8138 (8139)
18	M-CAST RTP PTT 3 8140 (8141)	RTP and RTCP ports for PTT group 3.	0000-9999	8140 (8141)
19	M-CAST RTP PTT 4 8142 (8143)	RTP and RTCP ports for PTT group 4	0000-9999	8142 (8143)
20	M-CAST RTP PTT 5 8144 (8145)	RTP and RTCP ports for PTT group 5.	0000-9999	8144 (8145)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
21	M-CAST RTP PTT 6 8146 (8147)	RTP and RTCP ports for PTT group 6.	0000-9999	8146 (8147)
22	M-CAST RTP PTT 7 8148 (8149)	RTP and RTCP ports for PTT group 7.	0000-9999	8148 (8149)
23	M-CAST RTP PTT 8 8150 (8151)	RTP and RTCP ports for PTT group 8.	0000-9999	8150 (8151)
24	M-CAST RTP PTT 9 8152 (8153)	RTP and RTCP ports for PTT group 9.	0000-9999	8152 (8153)
25	M-CAST RTP PTT ALL 8154 (8155)	RTP and RTCP ports for PTT group ALL	0000-9999	8154 (8155)
26	M-CAST RTP BGM VSF 1 8156 (8157)	RTP and RTCP ports for VSF/VMIM BGM use.	0000-9999	8156 (8157)
27	M-CAST RTP SLT MOH 1 8158 (8159)	RTP and RTCP ports for SLT MOH 1 use.	0000-9999	8158 (8159)
28	M-CAST RTP SLT MOH 2 8160 (8161)	RTP and RTCP ports for SLT MOH 2 use.	0000-9999	8160 (8161)
29	M-CAST RTP SLT MOH 3 8162 (8163)	RTP and RTCP ports for SLT MOH 3 use.	0000-9999	8162 (8163)
30	M-CAST RTP SLT MOH 4 8164 (8165)	RTP and RTCP ports for SLT MOH 4 use.	0000-9999	8164 (8165)
31	M-CAST RTP SLT MOH 5 8166 (8167)	RTP and RTCP ports for SLT MOH 5 use.	0000-9999	8166 (8167)
32	M-CAST RTP VSF MOH 2 8168 (8169)	RTP and RTCP ports for VSF/VMIM MOH 2 use.	0000-9999	8168 (8169)
33	M-CAST RTP VSF MOH 3 8170 (8171)	RTP and RTCP ports for VSF/VMIM MOH 3 use.	0000-9999	8170 (8171)

Table 2.3.6.5-2 MULTI-CAST RTP/RTCP PORTS (PGM 165)

(iPECS-50 & MFIM100)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	M-CAST RTP BGM INT 8100 (8101)	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
2	M-CAST RTP BGM EXT1 8102 (8103)	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
3	M-CAST CAST RTP BGM EXT2 8104 (8105)	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
4	M-CAST RTPI-PAGE1 8106 (8107)	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
5	M-CAST RTP I-PAGE 2 8108 (8109)	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
6	M-CAST CAST RTP I-PAGE 3 8110 (8111)	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
7	MULTICAST RTP I-PAGE 4 8112 (8113)	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
8	MULTICAST RTP I-PAGE 5 8114 (8115)	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
9	MULTICAST RTP I-PAGE 6 8116 (8117)	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
10	MULTICAST RTP) I-PAGE 7 8118 (8119)	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
11	MULTICAST RTP I-PAGE 8 8120 (8121)	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
12	MULTICAST RTP I-PAGE 9 8122 (8123)	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
13	MULTICAST RTP IPAGE 10 8124 (8125)	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
14	MULTICAST RTP I-PAGE ALL 8126 (8127)	RTP and RTCP ports for Internal All Call Page.	0000-9999	8126 (8127)
15	MULTICAST RTP E-PAGE 1 8128 (8129)	RTP and RTCP ports for External Page 1.	0000-9999	8128 (8129)
16	MULTICAST RTP E-PAGE 2 8130 (8131)	RTP and RTCP ports for External Page 2.	0000-9999	8130 (8131)
17	MULTICAST RTP E-PAGE ALL 8132 (8133)	RTP and RTCP ports for External All Call Page.	0000-9999	8132 (8133)
18	MULTICAST RTP PAGEALL 8134 (8135)	RTP and RTCP ports for All Call Page.	0000-9999	8134 (8135)
19	M-CAST RTP PTT 1 8136 (8137)	RTP and RTCP ports for PTT group 1.	0000-9999	8136 (8137)
20	M-CAST RTP PTT 2 8138 (8139)	RTP and RTCP ports for PTT group 2.	0000-9999	8138 (8139)
21	M-CAST RTP PTT 3 8140 (8141)	RTP and RTCP ports for PTT group 3.	0000-9999	8140 (8141)
22	M-CAST RTP PTT 4 8142 (8143)	RTP and RTCP ports for PTT group 4	0000-9999	8142 (8143)
23	M-CAST RTP PTT 5 8144 (8145)	RTP and RTCP ports for PTT group 5.	0000-9999	8144 (8145)
24	M-CAST RTP PTT 6 8146 (8147)	RTP and RTCP ports for PTT group 6.	0000-9999	8146 (8147)
25	M-CAST RTP PTT 7 8148 (8149)	RTP and RTCP ports for PTT group 7.	0000-9999	8148 (8149)
26	M-CAST RTP PTT 8 8150 (8151)	RTP and RTCP ports for PTT group 8.	0000-9999	8150 (8151)
27	M-CAST RTP PTT 9 8152 (8153)	RTP and RTCP ports for PTT group 9.	0000-9999	8152 (8153)
28	M-CAST RTP PTT ALL 8154 (8155)	RTP and RTCP ports for PTT group ALL	0000-9999	8154 (8155)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
29	M-CAST RTP BGM VSF 1 8156 (8157)	RTP and RTCP ports for VSF/VMIM BGM use.	0000-9999	8156 (8157)
30	M-CAST RTP SLT MOH 1 8158 (8159)	RTP and RTCP ports for SLT MOH 1 use.	0000-9999	8158 (8159)
31	M-CAST RTP SLT MOH 2 8160 (8161)	RTP and RTCP ports for SLT MOH 2 use.	0000-9999	8160 (8161)
32	M-CAST RTP SLT MOH 3 8162 (8163)	RTP and RTCP ports for SLT MOH 3 use.	0000-9999	8162 (8163)
33	M-CAST RTP SLT MOH 4 8164 (8165)	RTP and RTCP ports for SLT MOH 4 use.	0000-9999	8164 (8165)
34	M-CAST RTP SLT MOH 5 8166 (8167)	RTP and RTCP ports for SLT MOH 5 use.	0000-9999	8166 (8167)
35	M-CAST RTP VSF MOH 2 8168 (8169)	RTP and RTCP ports for VSF/VMIM MOH 2 use.	0000-9999	8168 (8169)
36	M-CAST RTP VSF MOH 3 8170 (8171)	RTP and RTCP ports for VSF/VMIM MOH 3 use.	0000-9999	8170 (8171)

Table 2.3.6.5-3 MULTI-CAST RTP/RTCP PORTS (PGM 165)

(MFIM300 & MFIM600)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	M-CAST RTP BGM INT 8100 (8101)	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
2	M-CAST RTP BGM EXT 1 8102 (8103)	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
3	M-CAST RTP BGM EXT 2 8104 (8105)	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
4	M-CAST RTP I-PAGE 1 8106 (8107)	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
5	M-CAST RTP I-PAGE 2 8108 (8109)	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
6	M-CAST RTP I-PAGE 3 8110 (8111)	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
7	M-CAST RTP I-PAGE 4 8112 (8113)	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
8	M-CAST RTP I-PAGE 5 8114 (8115)	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
9	M-CAST RTP I-PAGE 6 8116 (8117)	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
10	M-CAST RTP(RTCP) I-PAGE 7 8118 (8119)	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
11	M-CAST RTP I-PAGE 8 8120 (8121)	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
12	M-CAST RTP I-PAGE 9 8122 (8123)	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
13	M-CAST RTP I-PAGE 10 8124 (8125)	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
14	M-CAST RTP I-PAGE 11 8126 (8127)	RTP and RTCP ports for Internal Page 11.	0000-9999	8126 (8127)
15	M-CAST RTP I-PAGE 12 8128 (8129)	RTP and RTCP ports for Internal Page 12.	0000-9999	8128 (8129)
16	M-CAST RTP I-PAGE 13 8130 (8131)	RTP and RTCP ports for Internal Page 13.	0000-9999	8130 (8131)
17	M-CAST RTP I-PAGE 14 8132 (8133)	RTP and RTCP ports for Internal Page 14.	0000-9999	8132 (8133)
18	M-CAST RTP I-PAGE 15 8134 (8135)	RTP and RTCP ports for Internal Page 15.	0000-9999	8134 (8135)
19	M-CAST RTP I-PAGE 16 8136 (8137)	RTP and RTCP ports for Internal Page 16.	0000-9999	8136 (8137)
20	M-CAST RTP I-PAGE 17 8138 (8139)	RTP and RTCP ports for Internal Page 17.	0000-9999	8138 (8139)
21	M-CAST RTP I-PAGE 18 8140 (8141)	RTP and RTCP ports for Internal Page 18.	0000-9999	8140 (8141)
22	M-CAST RTP I-PAGE 19 8142 (8143)	RTP and RTCP ports for Internal Page 19.	0000-9999	8142 (8143)
23	M-CAST RTP I-PAGE 20 8144 (8145)	RTP and RTCP ports for Internal Page 20.	0000-9999	8144 (8145)
24	M-CAST RTP I-PAGE 21 8146 (8147)	RTP and RTCP ports for Internal Page 21.	0000-9999	8146 (8147)
25	M-CAST RTP I-PAGE 22 8148 (8149)	RTP and RTCP ports for Internal Page 22.	0000-9999	8148 (8149)
26	M-CAST RTP I-PAGE 23 8150 (8151)	RTP and RTCP ports for Internal Page 23.	0000-9999	8150 (8151)
27	M-CAST RTP I-PAGE 24 8152 (8153)	RTP and RTCP ports for Internal Page 24.	0000-9999	8152 (8153)
28	M-CAST RTP I-PAGE 25 8154 (8155)	RTP and RTCP ports for Internal Page 25.	0000-9999	8154 (8155)
29	M-CAST RTP I-PAGE 26 8156 (8157)	RTP and RTCP ports for Internal Page 26.	0000-9999	8156 (8157)
30	M-CAST RTP I-PAGE 27 8158 (8159)	RTP and RTCP ports for Internal Page 27.	0000-9999	8158 (8159)
31	M-CAST RTP I-PAGE 28 8160 (8161)	RTP and RTCP ports for Internal Page 28.	0000-9999	8160 (8161)
32	M-CAST RTP I-PAGE 29 8162 (8163)	RTP and RTCP ports for Internal Page 29.	0000-9999	8162 (8163)
33	M-CAST RTP I-PAGE 30 8164 (8165)	RTP and RTCP ports for Internal Page 30.	0000-9999	8164 (8165)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
34	M-CAST RTP I-PAGE 31 8166 (8167)	RTP and RTCP ports for Internal Page 31.	0000-9999	8166 (8167)
35	M-CAST RTP I-PAGE 32 8168 (8169)	RTP and RTCP ports for Internal Page 32.	0000-9999	8168 (8169)
36	M-CAST RTP I-PAGE 33 8170 (8171)	RTP and RTCP ports for Internal Page 33.	0000-9999	8170 (8171)
37	M-CAST RTP I-PAGE 34 8172 (8173)	RTP and RTCP ports for Internal Page 34.	0000-9999	8172 (8173)
38	M-CAST RTP I-PAGE 35 8174 (8175)	RTP and RTCP ports for Internal Page 35.	0000-9999	8174 (8175)
39	M-CAST RTP I-PAGE ALL 8176 (8177)	RTP and RTCP ports for Internal All Call Page.	0000-9999	8176 (8177)
40	M-CAST RTP E-PAGE 1 8178 (8179)	RTP and RTCP ports for External Page 1.	0000-9999	8178 (8179)
41	MULTICAST RTP E-PAGE 2 8180 (8181)	RTP and RTCP ports for External Page 2.	0000-9999	8180 (8181)
42	M-CAST RTP E-PAGE ALL 8182 (8183)	RTP and RTCP ports for External All Call Page.	0000-9999	8182 (8183)
43	M-CAST RTP PAGE ALL 8184 (8185)	RTP and RTCP ports for All Call Page.	0000-9999	8184 (8185)
44	M-CAST RTP PTT 1 8186 (8187)	RTP and RTCP ports for PTT group 1.	0000-9999	8186 (8187)
45	M-CAST RTP PTT 2 8188 (8189)	RTP and RTCP ports for PTT group 2.	0000-9999	8188 (8189)
46	M-CAST RTP PTT 3 8190 (8191)	RTP and RTCP ports for PTT group 3.	0000-9999	8190 (8191)
47	M-CAST RTP PTT 4 8192 (8193)	RTP and RTCP ports for PTT group 4.	0000-9999	8192 (8193)
48	M-CAST RTP PTT 5 8194 (8195)	RTP and RTCP ports for PTT group 5.	0000-9999	8194 (8195)
49	M-CAST RTP PTT 6 8196 (8197)	RTP and RTCP ports for PTT group 6.	0000-9999	8196 (8197)
50	M-CAST RTP PTT 7 8198 (8199)	RTP and RTCP ports for PTT group 7.	0000-9999	8198 (8199)
51	M-CAST RTP PTT 8 8200 (8201)	RTP and RTCP ports for PTT group 8.	0000-9999	8200 (8201)
52	M-CAST RTP PTT 9 8202 (8203)	RTP and RTCP ports for PTT group 9.	0000-9999	8202 (8203)
53	M-CAST RTP PTT ALL 8204 (8205)	RTP and RTCP ports for PTT group ALL.	0000-9999	8204 (8205)
54	M-CAST RTP BGM VSF 1 8206 (8207)	RTP and RTCP ports for VSF/VMIM BGM use.	0000-9999	8206 (8207)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
55	M-CAST RTP SLT MOH 1 8208 (8209)	RTP and RTCP ports for SLT MOH 1 use.	0000-9999	8208 (8209)
56	M-CAST RTP SLT MOH 2 8210 (8211)	RTP and RTCP ports for SLT MOH 2 use.	0000-9999	8210 (8211)
57	M-CAST RTP SLT MOH 3 8212 (8213)	RTP and RTCP ports for SLT MOH 3 use.	0000-9999	8212 (8213)
58	M-CAST RTP SLT MOH 4 8214 (8215)	RTP and RTCP ports for SLT MOH 4 use.	0000-9999	8214 (8215)
59	M-CAST RTP SLT MOH 5 8216 (8217)	RTP and RTCP ports for SLT MOH 5 use.	0000-9999	8216 (8217)
60	M-CAST RTP VSF MOH 2 8218 (8219)	RTP and RTCP ports for VSF/VMIM MOH 2 use.	0000-9999	8218 (8219)
61	M-CAST RTP VSF MOH 3 8220 (8221)	RTP and RTCP ports for VSF/VMIM MOH 3 use.	0000-9999	8220 (8221)

(MFIM1200)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	M-CAST RTP BGM INT 8100 (8101)	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
2	M-CAST RTP BGM EXT 1 8102 (8103)	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
3	M-CAST RTP BGM EXT 2 8104 (8105)	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
4	M-CAST RTP I-PAGE 1 8106 (8107)	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
5	M-CAST RTP I-PAGE 2 8108 (8109)	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
…				
103	M-CAST RTP I-PAGE 4 8304 (8305)	RTP and RTCP ports for Internal Page 100.	0000-9999	8304 (8305)
104	M-CAST RTP I-PAGE ALL 8306 (8307)	RTP and RTCP ports for Internal All Call Page.	0000-9999	8306 (8307)
105	M-CAST RTP E-PAGE 1 8308 (8309)	RTP and RTCP ports for External Page 1.	0000-9999	8308 (8309)
106	MULTICAST RTP E-PAGE 2 8310 (8311)	RTP and RTCP ports for External Page 2.	0000-9999	8310 (8311)
107	M-CAST RTP E-PAGE ALL 8312 (8313)	RTP and RTCP ports for External All Call Page.	0000-9999	8312 (8313)
108	M-CAST RTP PAGE ALL 8314 (8315)	RTP and RTCP ports for All Call Page.	0000-9999	8314 (8315)
109	M-CAST RTP PTT 1 8316 (8317)	RTP and RTCP ports for PTT group 1.	0000-9999	8316 (8317)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
110	M-CAST RTP PTT 2 8318 (8319)	RTP and RTCP ports for PTT group 2.	0000-9999	8318 (8319)
111	M-CAST RTP PTT 3 8320 (8321)	RTP and RTCP ports for PTT group 3.	0000-9999	8320 (8321)
112	M-CAST RTP PTT 4 8322 (8323)	RTP and RTCP ports for PTT group 4.	0000-9999	8322 (8323)
113	M-CAST RTP PTT 5 8324 (8325)	RTP and RTCP ports for PTT group 5.	0000-9999	8324 (8325)
114	M-CAST RTP PTT 6 8326 (8327)	RTP and RTCP ports for PTT group 6.	0000-9999	8326 (8327)
115	M-CAST RTP PTT 7 8328 (8329)	RTP and RTCP ports for PTT group 7.	0000-9999	8328 (8329)
116	M-CAST RTP PTT 8 8330 (8331)	RTP and RTCP ports for PTT group 8.	0000-9999	8330 (8331)
117	M-CAST RTP PTT 9 8332 (8333)	RTP and RTCP ports for PTT group 9.	0000-9999	8332 (8333)
118	M-CAST RTP PTT ALL 8334 (8335)	RTP and RTCP ports for PTT group ALL.	0000-9999	8334 (8335)
119	M-CAST RTP BGM VSF 1 8336 (8337)	RTP and RTCP ports for VSF/VMIM BGM 1 use.	0000-9999	8336 (8337)
120	M-CAST RTP SLT MOH 1 8338 (8339)	RTP and RTCP ports for SLT MOH 1 use.	0000-9999	8338 (8339)
121	M-CAST RTP SLT MOH 2 8340 (8341)	RTP and RTCP ports for SLT MOH 2 use.	0000-9999	8340 (8341)
122	M-CAST RTP SLT MOH 3 8342 (8343)	RTP and RTCP ports for SLT MOH 3 use.	0000-9999	8342 (8343)
123	M-CAST RTP SLT MOH 4 8344 (8345)	RTP and RTCP ports for SLT MOH 4 use.	0000-9999	8344 (8345)
124	M-CAST RTP SLT MOH 5 8346 (8347)	RTP and RTCP ports for SLT MOH 5 use.	0000-9999	8346 (8347)
125	M-CAST RTP VSF MOH 2 8348 (8349)	RTP and RTCP ports for VSF/VMIM MOH 2 use.	0000-9999	8348 (8349)
126	M-CAST RTP VSF MOH 3 8350 (8351)	RTP and RTCP ports for VSF/VMIM MOH 3 use.	0000-9999	8350 (8351)

2.3.6.6 DISA COS -PGM Code 166-

A DISA user is subject to the dialing restrictions assigned in the DISA Class-of-Service (COS). The restrictions applied are the same as with the corresponding Station COS levels 1~11 and interact with the CO COS in the same manner. Assignments for DISA COS are made for the Day, Timed and Night mode of system operation. The default for all three DISA COS modes is 1, no restrictions.

PROCEDURE:	
DISA COS (1 – 11) **DAY: 1 NIGHT: 1 TIMED: 1**	1. Press the **[PGM]** button and dial 166.
	Select the desired button; Button 1: Day mode COS Button 2: Night mode COS. Button 3: Timed mode COS
	Use the dial-pad to enter desired DISA COS (1~11).
	Press the **[SAVE]** button to store the DISA COS data entry.

2.3.6.7 DID/DISA Destination -PGM Code 167-

When a DID line or DISA user dials an invalid/vacant or busy station number the caller will be sent to the assigned destination. The destination is separately defined for invalid, busy, and no answer conditions and can be defined as the Attendant, busy tone or Station Group. Note that for calls on a DID line to a busy station, Call Wait can be assigned, refer to **PGM CODE** 113, Station Attributes III, button 9.

Also, for DID calls only, announcements (prompts) can be sent from the VSF to the caller for various conditions, busy, error, DND, No Answer, reroute busy, reroute error, reroute no answer, or Attendant Transfer.

PROCEDURE:	
DID/DISA DESTINATION **PRESS FLEX_KEY (1-7)**	1. Press the **[PGM]** button and dial 167.
BUSY DESTINATION **TONE (F1-F7)**	Select the desired Flex button, Button 1: Busy Destination Button 2: Error Destination Button 3: No Answer Destination Button 4: VSF Prompt Usage Button 5: Reroute Busy Destination Button 6: Reroute Error Destination Button 7: Reroute No answer Destination

	For Flex button 1~3 or 5~7, use the dial-pad to enter 1: ON or 0: OFF for the following VSF prompts. 1: Tone 2: Attendant 3: Station Group number For Flex button 4, select Flex button 1~5 for the desired VSF prompt and use the dial-pad to enter 1: ON or 0: OFF: Button 1: Busy Prompt Button 2: Error Prompt Button 3: DND Prompt Button 4: No Answer Prompt Button 5: Attendant Transfer Prompt.
	Press the **[SAVE]** button to store the destination data entry.

2.3.6.8 External Control Contacts -PGM Code 168-

The MFIMs include programmable contacts, which can be used to control external devices. Refer to Table 1.1-1 System Capacity Chart for number of available contacts. Each contact is assigned to activate under one of several conditions. As a Loud Bell Contact (LBC), the contact will activate when the assigned station or group receives an external call. Note for LBC, when the system is in the Night or Timed Ring mode, the contact will activate for incoming UNA calls and will ignore any station assignment. The contact may alternatively activate as a Door Lock Release contact, when External Page Zone 1 is accessed or when External Page Zone 2 is accessed.

PROCEDURE:	
EXT CONTROL CONTACT **PRESS FLEX_KEY (1-4)**	1. Press the **[PGM]** button and dial 168.
EXT CONTROL CONTACT **NO 1 : LBC (150)**	Select Flex button 1~4 for the desired External Control contact.
	Use the dial-pad to enter desired data. 1: LBC + station number, (ex. 150) 2: Door Lock Release 3: External Page 1 access 4: External Page 2 access
	Press the **[SAVE]** button to store the External Contact data entry.

2.3.6.9 LCD Display Mode -PGM Code 169-

The LCD display mode sets the time (12/24 hr), date (day/month order), language and day-of-week display. Refer to Table 2.3.6.9-1 and Table 2.3.6.9-2 for a description of the modes, the data entries required and LCD displays for each attribute.

PROCEDURE:	
LCD DISPLAY MODE PRESS FLEX KEY (1-3)	1. Press the **[PGM]** button and dial 169.
Refer to Table 2.3.6.9-1 DISPLAY	Select the desired Flex button; refer to Table 2.3.6.9-1.
	Use the dial-pad to enter the desired mode and language, refer to Table 2.3.6.9-1 and Table 2.3.6.9-2.
	Press the **[SAVE]** button to store the LCD Display mode data entry.

Table 2.3.6.9-1 LCD DISPLAY MODE (PGM 169)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	LCD DATE MODE (1:MMDD/0:DDMM): DUMMY	Sets the Date display as month/day or day/month.	1: MM-DD-YY 0: DD-MM-YY	DDMMYY
2	LCD TIME MODE (1:12H/0:24H):12H	Sets the Time display mode as 12 hour or 24-hour (military) time.	1: 12 Hour Mode 0: 24 Hour Mode	12 Hour
3	LCD LANGUAGE (00-14) ENGLISH (00)	Sets the Language used in the LCD; refer to Table 2.3.6.9-2 below.	00~14	00 (English)
4	LCD WEEKDAY MODE (0-2) PGM 169 BTN 1 (0)	Sets the Day-of-Week (DoW) display mode: 0 no DoW, see PGM 169-Btn1... 1: display mmm/dd/DoW, (alpha month display, overrides btn 1. 2: display mm/dd/DoW, numeric month display, overrides btn 1.	0: use btn 1 1: MMM/DD DoW 2: MM DD DoW	Use btn 1

Table 2.3.6.9-2 LCD LANGUAGE SELECTION

ENTRY	LANGUAGE
00	English
01	Italian
02	Finnish
03	Dutch
04	Swedish
05	Danish
06	Norwegian
07	Hebrew
08	German
09	French
10	Portuguese
11	Spanish
12	Korean
13	Estonian
14	Russian

2.3.6.10 Button LED Flash Rate -PGM Code 170-

The LED flash rate for various functions and states can be assigned any one of the system's 15 signals. The various functions and states are shown in Table 2.3.6.10-1. The 15 flash signals available in the system are shown in Table 2.3.6.10-2.

PROCEDURE:	
LED FLASHING RATE **PRESS FLEX_KEY (1-24)**	1. Press the **[PGM]** button and dial 170.
LED FLASHING RATE **PRESS FLEX KEY (01-24)**	There are 29 Flash rate entries represented by Flex buttons. To access entries 25 to 29, use the **[VOL UP]**/**[VOL DOWN]** buttons. Press the desired Flex button, refer to Table 2.3.6.10-1
Refer to Table 2.3.6.10-1 & -2 **DISPLAY**	Use the dial-pad to enter desired data for the flash rate, refer to Table 2.3.6.10-1 and Table 2.3.6.10-2.
	Press the **[SAVE]** button to store the Flash Rate data entry.

Table 2.3.6.10-1 BUTTON LED FLASH RATE (PGM 170)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	COL IN RING FLASH 30 IPM	CO button Incoming ring flashing rate.	00-14	FLASH 30 IPM (2)
2	COL XFER RING FLASH 120 IPM	CO button transfer ring flashing rate.	00-14	FLASH 120 IPM (10)
3	COL QUE RING FLASH 240 IPM FLUTTER	CO button queue call back ring flashing rate.	00-14	FLASH 240 IPM FLUTTER (6)
4	COL RCL RING FLASH 480 IPM FLUTTER	CO button recall ring flashing rate	00-14	FLASH 480 IPM FLUTTER (7)
5	COL I HOLD RING FLASH 30 IPM WINK	CO button I hold flashing rate.	00-14	FLASH 30 IPM WINK (12)
6	COL SYS HOLD RING FLASH 60 IPM	CO button system hold flashing rate.	00-14	FLASH 60 IPM (3)
7	COL EXC HOLD RING FLASH 120 IPM	CO button exclusive hold flashing rate.	00-14	FLASH 120 IPM (10)
8	COL OUT DISABLED FLASH 240 IPM FLUTTER	CO button out going disabled flashing rate.	00-14	FLASH 240 IPM FLUTTER (6)
9	COL IN OFFNET CFW FLASH 240 IPM FLUTTER	CO button incoming off-net call forward flashing rate.	00-14	FLASH 240 IPM FLUTTER (6)
10	COL DISA IND FLASH 240 IPM	CO button DISA indication flashing rate.	00-14	FLASH 240 IPM (5)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
11	COL SUPP CW FLASH 240 IPM FLUTTER	CO button supplementary call waiting flashing rate.	00-14	FLASH 240 IPM FLUTTER (6)
12	COL SUPP HOLD FLASH 480 IPM	CO button supplementary hold flashing rate.	00-14	FLASH 480 IPM (8)
13	DSS CO RING FLASH 30 IPM	DSS button CO ring flashing rate.	00-14	FLASH 30 IPM (2)
14	DSS ALL RING FLASH 60 IPM	DSS button ICM ALL ring flashing rate.	00-14	FLASH 60 IPM (3)
15	DSS ASC RING FLASH 120 IPM	DSS button ICM ring associate device flashing rate.	00-14	FLASH 120 IPM (10)
16	DSS IN DND FLASH 60 IPM	DSS button station in DND.	00-14	FLASH 60 IPM (3)
17	DSS LOCK OUT FLASH 480 IPM FLUTTER	DSS button station in lockout.	00-14	FLASH 480 IPM FLUTTER (7)
18	DSS PRESEL MSG FLASH 30 IPM	DSS button station in pre-selected message.	00-14	FLASH 30 IPM (2)
19	DSS ICM HOLD FLASH 60 IPM	DSS button station on ICM hold.	00-14	FLASH 60 IPM (3)
20	DSS OTHER FLASH 120 IPM	DSS button station in other state.	00-14	FLASH 120 IPM (10)
21	UCD QUE RING 2 FLASH 60 IPM	CIQ Threshold # 1	00-14	FLASH 60 IPM (3)
22	UCD QUE RING 6 FLASH 120 IPM	CIQ Threshold # 2	00-14	FLASH 120 IPM (10)
23	UCD QUE RING 7-X FLASH 240 IPM	CIQ Threshold # 3	00-14	FLASH 240 IPM (5)
24	UCD DND(OFF DUTY) FLASH 120 IPM	UCD agent is off duty (UCD DND).	00-14	FLASH 120 IPM (10)
25	UCD WARNING FLASH 120 IPM	UCD warning tone.	00-14	FLASH 120 IPM (10)
26	UCD HELP FLASH 120 IPM	UCD help request/response.	00-14	FLASH 120 IPM (10)
27	FEATURE RECORD FLASH 240 IPM	FEATURE voice record button.	00-14	FLASH 240 IPM (5)
28	FEATURE MSG WAIT FLASH 30 IPM	FEATURE message wait.	00-14	FLASH 30 IPM (2)
29	OUT OF SERVICE FLASH OFF	Station in out-of-service state	00-14	FLASH OFF (00)

Table 2.3.6.10-2 FLASH RATE TABLE (PGM 170)

Flash Rate	DESCRIPTION
00	Flash OFF
01	Steady On
02	30 ipm flash (30% On)
03	60 ipm flash (30% On)
04	60 ipm double wink (30% On-Off-On-Off 7 &0% On)
05	240 ipm flash (30% On)
06	240 ipm flutter (30% On-Off-On-Off-On & 70% Off)
07	480 ipm flash (30% On)
08	480 ipm flutter (30% On-Off-On-Off-On & 70% Off)
09	15 ipm flash (30% On)
10	120 ipm flash (30% On)
11	120 ipm flutter (30% On-Off-On-Off-On & 70% Off)
12	30 ipm double flash (30% On-Off-On & 70% Off)
13	480 ipm double wink (30% On-Off-On-Off 7 &0% On)
14	480 ipm double flash (30% On-Off-On & 70% Off)

2.3.6.11 Music Sources –PGM Code 171–

Music inputs are provided for use as the Background Music and/or Music-On-Hold source inputs. iPECS-Micro provides one virtual input, iPECS-50 provides a single input, other MFIMs provide for two (2) music inputs. The first input can be either the internal source or the external BGM1 except iPECS-Micro (iPECS-Micro does not has an external BGM source). Note that the BGM1 input on the front panel of the MFIM and the BGM1 input on the rear panel of the MFIM are electrically connected and only one (1) should be used; refer to the iPECS Description and Installation Manual section 4.4.2. Refer to Table 2.3.6.11-1 for a description of the sources, the data entries required and LCD displays. In addition, a VSF or VMIM announcement may be recorded and played as MOH to a holding caller. And SLTM port is used as MOH to a holiding caller.

PROCEDURE:	
MUSIC ASSIGN **PRESS FLEX_KEY (1-4)**	1. Press the **[PGM]** button and dial 171.
Refer to Table 2.3.6.11-1 **DISPLAY**	Select the desired Flex button, refer to Table 2.3.6.11-1.
	Use the dial-pad to select the desired Music Source, refer to Table 2.3.6.11-1.
	To save the Music Source, press the **[SAVE]** button.

Table 2.3.6.11-1 MUSIC SOURCES FOR MOH & BGM (PGM 171)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**BGM TYPE (00-10)** **MUSIC 1 (01)**	Assigns the source for BGM. iPECS-Micro and iPECS-50 does not support selection 2: Music 2.	00: Hold tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	1

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	MOH TYPE (0-8) MUSIC 1 (1)	Assigns the source for MOH. iPECS-Micro and iPECS-50 does not support selection 2: Music 2.	00: Hold tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	1
3	INT/EXT1 MUSIC (0:INT/1:EXT1): INT	Assigns the input for source 1 (Internal or External) iPECS-Micro does not support this button.	0: Internal 1: Ext. Music 1	Internal
4	ASGN SLT MOH (F1-F5) …. …. …. …. ….	Assign the SLTM port as a SLTMOHx	F1:SLTMOH1, F2:SLTMOH2, F3:SLTMOH3, F4:SLTMOH4 F5:SLTMOH5	

2.3.6.12 PBX Access Codes -PGM Code 172-

When the system is used "behind" a PBX/CTX, the system needs to recognize the PBX/CTX Trunk access codes to implement dialing restriction, tone detection sequences and Flash timing. A maximum of four (4) Trunk Access Codes of one (1) or two (2) digits can be entered.

PROCEDURE:

PABX ACCESS CODE PRESS FLEX_KEY (1-4)	1. Press the **[PGM]** button and dial 172.
PABX ACCESS CODE 1 ..	Select the Flex button for the desired Access Code (button 1~4).
	Use the dial-pad to enter the PABX Trunk Access Code, two (2) digits 0~9, Use "*" as a wild card (any digit) entry.
	Press the **[SAVE]** button to store the access code data entry.

2.3.6.13 Ringing Line Preference Priority -PGM Code 173-

When multiple calls are ringing at a station assigned Ringing Line Preference, the order of preference can be assigned based on the type of call; CO/IP Transfer (XFR), CO/IP Recall (REC), Incoming call (INC), or CO/IP Queue (QUE). ICM calls are always assigned the lowest priority.

PROCEDURE:

XFR REC INC QUE 1 2 3 4	1. Press the **[PGM]** button and dial 173.
	Select the Flex button for the desired Call Type, refer to Table 2.3.6.13-1.
	Use the dial-pad to enter the priority 1~4.
	Press the **[SAVE]** button to store the RLP Priority data entry.

Table 2.3.6.13-1 RLP PRIORITY (PGM 173)

Button	DESCRIPTION	RANGE	DEFAULT
1	CO/IP Transferred call	1~4	1
2	CO/IP Recall	1~4	2
3	COIP Incoming call	1~4	3
4	Queued CO/IP recall	1~4	4

2.3.6.14 RS-232 Port Settings -PGM Code 174-

The system has RS 232 serial ports located on the MFIM; one on the iPECS-50 , MFIM100 , MFIM300 , MFIM600 and MFIM1200 refer to the iPECS Description and Installation Manual, Section 4.4.2. Certain characteristics of each port are programmable: baud rate, RS 232 control, and page settings. Refer to Table 2.3.6.14-1 for a description of the settings, the data entries required and LCD displays.

PROCEDURE:	
RS232 PORT SETTING **PRESS FLEX_KEY (1-2)**	1. Press the **[PGM]** button and dial 174.
Refer to Table 2.3.6.14-1 **DISPLAY**	Press Flex button 1 for Serial port 1 or Flex button 2 for Serial port 2, then select a Flex button for the desired attribute, refer to Table 2.3.6.14-1.
	Use the dial-pad to enter the desired Port data, refer to Table 2.3.6.14-1.
	Press the **[SAVE]** button to store the Port Data entry.

Table 2.3.6.14-1 RS 232 PORT SETTINGS (PGM 174)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`SERIAL1 BAUD RATE` `BAUDRATE: 115200`	This entry establishes the BAUD rate for the RS-232 serial port.	1: NOT USED 2: 9600 3: 19200 4: 38400 5: 57600 6: 115200	115200
2	`SERIAL1 CTS/RTS` `(1:ON/0:OFF):OFF`	The system's RS232 port can support Clear-to-Send (CTS) and Ready-to-Send (RTS), control leads.	0: OFF 1: ON	OFF
3	`SERIAL1 PAGE BREAK` `(1:ON/0:OFF):OFF`	The system can send a page break command over the serial port at the end of each page. See button 4 for page length set-up.	0: OFF 1: ON	OFF
4	`SERIAL1 LINE PAGE` `(001-199) : 066`	This entry is used to set the page length, the number of lines the system will send before sending the page break, see button 3 above.	001~199	66
5	`SERIAL 1 XON/XOFF` `(1:ON /0:OFF):XOFF`	This entry enables XON/XOFF protocol.	0: OFF 1: ON	OFF

2.3.6.15 Serial Port Function Selections -PGM Code 175-

The system has RS 232 serial ports located on the MFIM; one RS 232 serial ports located on iPECS-50 , MFIM100, MFIM300 , MFIM600 and MFIM1200, Also, the system can employ IP over three (3) TCP channels for the output of various system information.

Each output function is assigned a Serial port or TCP channel that is used to output the information. In addition, a TCP port must be assigned when a function is defined to use a TCP channel. The Serial ports are located on the MFIM, refer to the iPECS Description and Installation Manual, Section 4.4.2.

Note each function can be defined to use only one output. Refer to Table 2.3.6.15-1 and Table 2.3.6.15-2 for a description of the selections, the data entries required and LCD displays.

PROCEDURE:	
PRINT PORT SELECTION **PRESS FLEX_KEY (1-2)**	1. Press the **[PGM]** button and dial 175.
SELECT TCP NO **PRESS FLEX_KEY (1-9)**	Press Flex button 1 to assign the output type for each function or Flex button 2 to assign the TCP port for the function when a TCP channel is selected for the function.
Refer to Table 2.3.6.15-1 or -2 **DISPLAY**	Select the Flex button for the desired function, refer to Table 2.3.6.15-1 or Table 2.3.6.15-2.
	Use the dial pad to enter the output type (Flex button 1) or TCP port (Flex button 2). For Flex button 1 the entries available are: 1: Serial port 1 2: Serial port 2 3: TCP channel 1 4: TCP channel 2 5: TCP channel 3
	Press the **[SAVE]** button to store the data entry.

Table 2.3.6.15-1 FUNCTION OUTPUT TYPE (PGM 175)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	OFF LINE SMDR (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for Off-line SMDR/Statistics output.	1 ~ 5	SERIAL1
2	ADMIN DATA (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the ADMIN Report output.	1 ~ 5	SERIAL1
3	TRAFFIC (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the TRAFFIC report output.	1 ~ 5	SERIAL1
4	SMDI (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the SMDI output.	1 ~ 5	SERIAL1

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
5	CALL INFO (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used to receive Call Information output.	1 ~ 5	SERIAL1
6	ON-LINE SMDR (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the On-line SMDR.	1 ~ 5	SERIAL1
7	TRACE (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the Trace output.	1 ~ 5	SERIAL1
8	DEBUG (1-5) SERIAL1 (1)	Defines the serial port or TCP channel used for the Debug output.	1 ~ 5	SERIAL1
9	ACD PACK (1-5) SERIAL 1 (1)	Defines the serial port or TCP channel used for the Unified Messages.	1 ~ 5	SERIAL1

Table 2.3.6.15-2 OUTPUT FUNCTION TCP PORT (PGM 175)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	OFF LINE SMDR (1-9999) TCP PORT(NULL)	Defines the TCP port used for Off-line SMDR/ Statistics output.	1 ~ 9999	NULL
2	ADMIN DATA (1-9999) TCP PORT(NULL)	Defines the TCP port used for the ADMIN Report output.	1 ~ 9999	NULL
3	TRAFFIC (1-9999) TCP PORT(NULL)	Defines the TCP port used for the TRAFFIC report output.	1 ~ 9999	NULL
4	SMDI (1-9999) TCP PORT(NULL)	Defines the TCP port used for the SMDI output.	1 ~ 9999	NULL
5	CALL INFO (1-9999) TCP PORT(NULL)	Defines the TCP port used to receive Call Information output.	1 ~ 9999	NULL
6	ON-LINE SMDR (1-9999) TCP PORT(NULL)	Defines the TCP port used for the On-line SMDR.	1 ~ 9999	NULL
7	TRACE (1-9999) TCP PORT(NULL)	Defines the TCP port used for the Trace output.	1 ~ 9999	NULL
8	DEBUG (1-9999) TCP PORT(NULL)	Defines the TCP port used for the Debug output.	1 ~ 9999	NULL
9	ACD PACK (1-9999) TCP PORT(NULL)	Defines the TCP port used for Unified Messages.	1 ~ 9999	NULL

2.3.6.16 Break/Make Ratio -PGM Code 176-

For Pulse dial CO Lines, the system supports 10pps and the percent break/make ratios of 67/33 or 60/40.

PROCEDURE:	
BREAK/MAKE RATIO **(1:66/33 / 0: 60/40): 60/40**	1. Press the **[PGM]** button and dial 176.
	Dial the digit (1 or 2) for the desired Break/Make ratio: 1: 66/33 2: 60?40.
	To save Break/Make ratio data, press the **[SAVE]** button.

2.3.6.17 SMDR Attributes -PGM Code 177-

Station Message Detail Recording (SMDR) is an ASCII output of details on both incoming and outgoing calls. Various SMDR attributes can be assigned including; output records for all calls or LD only, call cost per pulse when using call metering, etc. Refer to Table 2.3.6.17-1 for a description of each Attribute, LCD displays and the data entries required.

PROCEDURE:	
SMDR ATTRIBUTES **PRESS FLEX KEY (01-24)**	1. Press the **[PGM]** button and dial 177.
Refer to Table 2.3.6.17-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.6.17-1.
	Use the dial-pad to enter the desired data, refer to Table 2.3.6.17-1. Note for LD codes, first select the code using Flex button 1~5 then enter the 1 or 2 digit LD code desired.
	To save SMDR Attribute data, press the **[SAVE]** button.

Table 2.3.6.17-1 SMDR ATTRIBUTES (PGM 177)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**SMDR SAVE** **(1:ON/0:OFF) : OFF**	The system can store all outgoing calls (ON) or only calls that exceed the SMDR Timer (OFF). The later allows PSTN call set-up times to be removed from the recorded call time. For SMDR Timer settings refer to button 12 below.	0: OFF 1: ON	OFF
2	**SMDR PRINT** **(1 : ON/ 0: OFF) : ON**	The system can output SMDR records automatically as they occur (real-time) or only when requested. When this attribute is ON, SMDR output is automatic at call completion.	0: OFF 1: ON	ON

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
3	RECORD TYPE (1 : LD/ 0: ALL) : LD	The system can record all outgoing calls or only long distance calls. Long distance calls are identified by the LD digit count and LD codes assigned in Flex button 4 and 19, respectively.	1: LD 0: ALL calls	LD
4	LD CALL DIGIT COUNT (07-15) : 07	Dialed numbers, which exceed the assigned LD digit count, are considered long distance calls for SMDR and COS purposes.	07-15	07
5	PRINT INCOMING CALL (1 : ON/ 0: OFF) : OFF	The system can output records for incoming calls as well as outgoing calls. If enabled, incoming calls are recorded as well as outgoing calls.	0: OFF 1: ON	OFF
6	PRINT LOST CALL (1 : ON/ 0: OFF) : ON	The system can provide lost call records, records for unanswered incoming (abandoned) calls.	0: OFF 1: ON	ON
7	RECORD IN DETAIL (1 : ON/ 0: OFF) : ON	The system can output detailed call records (ON) or summary information (total number of calls, cost and cost for each station).	0: OFF 1: ON	ON
8	HIDDEN DIALED DIGIT (0 – 9) : 0	For security purposes, digits dialed for an outgoing call can be hidden and replaced with "*". This field defines the number of digits to hide. Button 24 below defines whether leading or trailing digits are hidden. In addition, the station must be assigned for SMDR HIDE, **PGM CODE** 113 button 5.	0~9	0
9	SMDR CURRENCY UNIT …	The unit of currency used for call cost can be identified with 3 alpha characters for easy reference, refer to Table 2.1.2-1.		-
10	COST PER PULSE 000000	When metering is provided by the PSTN, the cost per metering pulse can be assigned.	6 digits	000000
11	SMDR DECIMAL LOCATION (0-5) : 0	This value determines the position of the decimal in the Cost per Pulse, button 10, starting from the right most digit.	0~5	0
12	SMDR START TIMER (1sec) (000 – 250) : 000	To allow for call set-up times through the PSTN, a "Valid call timer" can be set. A call must be longer than the SMDR Start Timer for a call record to be generated if enabled under button 1 above.	000~250 seconds	000
13	SMTP MAIL SERVER ADDR 0 . 0 . 0 . 0	SMTP Mail server IPv4 address to receive the SMDR e-mail reports.	12-digits	
14	USER MAIL ADDR(ONLY WEB .xxx.xxx.xxx.xxx	IP Address to which system sends SMDR data, display only. To change data, use Web Admin.		
15	MAIL SEND WEEKLY SET N/A (0-7)	Sets day of week to send SMDR data weekly (0 for no weekly data, 1-7 for Monday through Sunday)	0-7	0
16	MAIL SEND DAILY SET 00(00-23)	Sets time-of-day for SMDR data to be sent on a daily basis (00 for no daily records, 01-23 for hour of the day).	00-23	00
17	AUTO SEND MODE (1 : ON/ 0: OFF) : OFF	If the SMDR buffer is full, the system can automatically send a notification by e-mail.	0: OFF 1: ON	OFF

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
18	AUTO DELETE MODE (1 : ON/ 0: OFF) : OFF	Delete SMDR records after sending e-mail.	0: OFF 1: ON	OFF
19	LONG DISTANCE CODE 0	For SMDR and COS purposes, five (5) Long Distance codes of up to two (2) digits each can be assigned. If dialed as the 1st digits, the call is considered an LD call.	Flex button 1~5 + digits 0~9 & '*' as a wild card	Btn 1: 0
20	SMDR RIN/CLI/CPN SVC_I (0:RIN/1:CLI/2:CPN):1	For incoming calls, the system will send the defined data item for "Field I". The data item may be CLI, CPN or Ring Service Time. Note the User dialed number is always provided for an outgoing call.	0: RING 1: CLI 2: CPN	RING time
21	MSN PRINT ON SMDR (1:ON/0:OFF) : OFF	Print MSN number Information in SMDR Record.	0: OFF 1: ON	OFF
22	SMDR RIN/CLI/CPN SVC_II (0:RN/1:CL/2:CP/3:NO):2	For incoming calls, the system will send the defined data item for "Field II". The data item may be CLI, CPN or Ring Service Time.	0: RING 1: CLI 2: CPN 3: None	RING time
23	PRINT SERIAL NO (1 : ON/0:OFF) : OFF	Print record number as part of SMDR output, will reset to 1 when SMDR capacity is reached or SMDR records are deleted, see btn 18	0: OFF 1: ON	OFF
24-1	SMDR HIDE DGT 1:RIGHT/0:LEFT) : RIGHT	When "HIDDEN DIALED DIGIT" is enabled, button 8 above, this field determines if leading or trailing digits are hidden.	0: Left 1: Right	Left
24-2	SMDR INTERFACE SVC (1:ON/0:OFF) : OFF	When enabled, the system stores SMDR data to send to applications including NMS upon request.	0:OFF 1:ON	OFF
24-3	SMDR ICM SAVE (1:ON/0:OFF) : OFF	When enabled, intercom call data is stored as part of the SMDR data.	0:OFF 1:ON	OFF
24-4	SMDR ICM PRINT (1:ON/0:OFF) : OFF	When enabled, intercom call data is printed as part of the On-line SMDR.	0:OFF 1:ON	OFF
24-5	SMDR DISC CAUSE (1:ON/0:OFF) : OFF	When enabled, the disconnect cause is stored in Off-line SMDR data and printed as parted of the On-line SMDR..	0:OFF 1:ON	OFF
24-6	LONG TIME CALL(10min) (000-144) : 000	To monitor long time CO call, a "Long Time Call" can be set. 0 means no monitoring. If CO call duration exceeds this value, a notification will be sent to NMS server and alarm will be displayed.	000 ~ 144	000

2.3.6.18 System Date, Time and Daylight Saving Time (DST) -PGM Code 178-

The system Date, Time and DST feature are established by this entry. The date and time are employed for several features and functions including; LCR, LCD displays, SMDR outputs, Auto Ring Mode Selection, Wake-Up Alarm, etc. If DST is enabled the system time will be adjust one-hour forward and back at the DST start and end times, respectively.

PROCEDURE:	
SET TIME/DATE & DST **PRESS FLEX_KEY (1 - 5)**	1. Press the **[PGM]** button and dial 178.
See Table 2.3.6.18-1 **DISPLAY**	Press the Flex button for the desired Attribute, refer to Table 2.3.6.18-1 Button 1; Time Button 2: Date Button 3: DST
	Use the dial-pad to enter desired data for the Attribute, refer to Table 2.3.6.18-1
	Press the **[SAVE]** button to store the data entry.

Table 2.3.6.18-1 SYSTEM TIME, DATE & DST (PGM 178)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	SET TIME TIME 00:22(HH:MM)	Sets the system time.	HH:MM	
2	SET DATE DATE : 01/13/08(MMDDYY)	Sets the system date.	MMDDYY	
3	DST ENABLE MODE (1:ON/0:OFF) : OFF	Enables DST feature for System Time	0 : OFF 1: ON	OFF
4	DST START TIME ONLY POSSIBLE BY WEBADM	The DST start time. This can be set only via WEB Admin.	See DST Table	2nd Sunday of March at 2:00 AM
5	DST END TIME ONLY POSSIBLE BY WEBADM	The DST end time. This can be set only via WEB Admin.	See DST Table	1st Sunday in Nov., at 2:00 AM

2.3.6.19 Multi Language – PGM Code 179–

The VSF and VMIM support multiple languages; up to three languages may be supported simultaneously. Once the prompts are downloaded to the VSF/VMIM, the caller receives the Language selection announcement for DISA and CCR calls as well as proceeding a Hunt Group guaranteed announcement or DID error announcement. The language selection announcement will only affect the language prompts enabled for use.

PROCEDURE:	
SET MULTI LANGUAGE **PRESS FLEX KEY (1 - 3)**	1. Press the **[PGM]** button and dial 179.
English Prompt Usage **(1:ON/0:OFF) : OFF**	Select Flex button, Button 1; 1st language Button 2: 2nd language Button 3: 3rd language
	Us the dial pad to enable or disable the desired language prompts
	Press the **[SAVE]** button to store the data entry.

2.3.6.20 System Timers I to III –PGM Codes 180–182–

A number of timers can be assigned to control and affect many features and functions of the system. Refer to Table 2.3.6.20-1 to Table 2.3.6.20-3 for a description of the timers and the input required.

PROCEDURE:	
SYSTEM TIMER 1 **PRESS FLEX KEY (01-20)**	1. Press the **[PGM]** button and dial: 180 for System Timers I 181 for System Timers II 182 for System Timers III.
Refer to Table 2.3.6.20-1 to -3 **DISPLAY**	Press the Flex button for the desired Timer; refer to Table 2.3.6.20-1 to Table 2.3.6.20-3.
	Use the dial-pad to enter the desired Timer data, refer to Table 2.3.6.20-1 to Table 2.3.6.20-3.
	Press the **[SAVE]** button to store the Timer data entry.

Table 2.3.6.20-1 SYSTEM TIMERS I (PGM 180)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ATD RECALL TMR(min) (00-60) : 01	Determines the amount of time the attendant receives recall after which the system will disconnect the call.	00~60 (minutes)	01

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	CALL PARK TMR(sec) (000-600) : 120	Determines the amount of time before a parked call will recall the station that parked the call.	000~600 (seconds)	120
3	CAMP-ON RECALL TMR(sec) (000-600) : 030	When a call transfer is camped-on, this timer determines the amount of time before the station receives recall.	000~200 (seconds)	030
4	EX-HOLD RECALL TMR(sec) (000-600) : 060	Determines the amount of time before a call placed on exclusive hold will recall the station.	000~300 (seconds)	060
5	I-HOLD RECALL TMR(sec) (000-600) : 030	Determines the amount of time before a call that is recalling the station will recall before also recalling the attendant.	000~300 (seconds)	030
6	S-HOLD RECALL TMR(sec) (000-600) : 030	Determines the amount of time before a call placed on system hold will recall the station.	000~300 (seconds)	030
7	TRANS RECALL TMR(sec) (000-600) : 030	Determines the amount of time a transferred call will ring at the receiving station before recalling the station that transferred the call.	000~300 (seconds)	030
8	ACNR DELAY TMR(sec) (000-300) : 030	If the ACNR Pause Timer expires and no CO Line is available for ACNR recall, the delay timer sets the delay before ACNR attempts to access a CO line. The retry counter is not decremented by this action.	000~300 (seconds)	030
9	ACNR PAUSE TMR(sec) (030-300) : 030	This timer establishes the time between ACNR recall attempts. (For CIS: 5-300)	030~300 (seconds)	030
10	ACNR RETRY COUNT (01-13) : 03	This counter sets the number of recall attempts for ACNR before ACNR is abandoned. (For CIS : 1-9).	1~13	03
11	ACNR TONE DTC TMR(sec) (001-300) : 030	If call progress tones are not available for ACNR, the system will wait this duration after dialing before considering the called party as busy/no answer.	001~300 (seconds)	30
12	AUTO RELEASE TMR(sec) (000-300) : 030	If a user accesses a CO/IP path and does not take any action, the system will automatically release the CO/IP path when this timer expires.	000~300 (seconds)	030
13	CCR INT DGT TMR(100ms) (000-300) : 030	Inter-digit timer used with Customer Call Routing function.	000~300 (100 msec)	030
14	CALL RESTRICT TMR(min) (00-99) : 00	Not used. Check PGM123-Btn2	00~99 (minutes)	00
15	CO DIAL DLY TMR(100ms) (00-99) : 01	Delay for through connection to prevent illegal dialing when CO/PBX has slow response.	00~99 (100 msec)	05
16	RLS GUARD TMR(100ms) (010-150) : 020	When a CO Line is returned to idle, the system will deny access for this time to assure the PSTN returns the CO circuitry to idle.	010~150 (100 msec)	020
17	CO RING OFF TMR(100ms) (010-150) : 060	This timer sets the maximum 'OFF' duration of the incoming ring cycle to determine when a call has been abandoned.	010~150 (100 msec)	060

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
18	CO RING ON TMR(100ms) (1-9) : 2	This timer sets the 'ON' time of the incoming ring cycle for the Ring Detect circuitry of the system to recognize an incoming call.	1~9 (100 msec.)	2
19	ELAPSED CALL TMR(sec) (060-900) : 180	Users can receive a periodic tone indicating the length of an outgoing call. This timer sets the time before and between the tones. Note Call Time Tone must be enabled in **PGM CODE** 112-btn 1.	060~900 (seconds)	180
20	WEB PWD GUARD TMR (min) (001-999) : 005	If no data packets are received during a Web Admin connection for the Guard time, a password check will be initiated by the system.	001~999 (minutes)	5

Table 2.3.6.20-2 SYSTEM TIMERS II (PGM 181)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	FWD NO ANS TMR(sec) (000-600) : 015	When a user activates No-Answer Forward, calls will ring for this duration before the calls are forward. The Station No-Answer Forward timer **PGM CODE** 123 will take precedence.	000~600 (seconds)	015
2	DID/DISA NO ANS(sec) (000-255) : 20	A DID/DISA call to a station will forward to the DID/DISA Destination assigned in **PGM CODE** 167 should this timer expire before the call is answered.	00~99 (seconds)	00
3	VSF USR RECORD(sec) (000-999) : 060	This timer sets the maximum duration allowed for the User Greeting in the system's basic Voice Mail.	000~999 (seconds)	60
4	VSF VALID USER MSG(sec) (0-9) : 4	This timer sets the minimum duration allowed for a voice mail message in the system's basic VSF Voice Mail. Messages shorter than this period are not stored.	0~9 (seconds)	4
5	DOOR OPEN TMR(100ms) (05-99) : 20	This timer sets the minimum contact closure time required to activate the contact assigned as a door open contact.	05~99 (100 msec.)	20
6	ICM DIAL TONE TMR(sec) (01-20) : 10	If a user goes off-hook on the Intercom and takes no action for this timer, the user will receive error tone.	01~20 (seconds)	10
7	INTER DIGIT TMR(sec) (01-20) : 05	This timer sets the maximum allowed time between user dialed digits. At expiration, the user will receive error-tone.	01~20 (seconds)	05
8	MSG REMINDER TONE(min) (00-60) : 00	An iPECS Phone user will receive periodic reminder tones of a message waiting at intervals based on this timer.	00~60 (minutes)	00
9	PAGE TIME OUT TMR(sec) (000-255) : 015	Determines the maximum duration of a page after which the caller and Page Zone are released.	000~255 (seconds)	15
10	PAUSE TMR(sec) (1-9) : 3	A Timed pause of this duration is used in Speed Dial and during other automatically dialed digits sent to the PSTN.	1~9 (seconds)	3
11	SOFT AUTO RLS TMR(sec) (01-30) : 10	When a Soft Key is used on the 6000 or 7000 series iPECS Phone, after expiration of this timer, the display will return to the previous display.	1~30 (seconds)	10
12	VM PAUSE TMR(100 msec) (01-90) : 30	When the system sends a "Pause" to Voice Mail using In-band signals, the Pause interval is defined by this timer. Not available in the USA.	1~90 (100 msec.)	30

Table 2.3.6.20-3 SYSTEM TIMERS III (PGM 182)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	SLT HOOK BOUNCE(100ms) (01-25) : 01	This timer determines the duration the system considers an actual state change in the hook-switch and not a spurious contact bounce.	01~25 (100 msec.)	01
2	SLT MAX H_FLASH(100ms) (01–25) : 10	This timer sets the maximum time an SLT user can depress the hook-switch for a Flash signal.	01~25 (100 msec.)	10
3	SLT MIN H_FLASH(10ms) (000–250) : 030	This time sets the minimum time an SLT user must depress the hook-switch for a Flash signal.	000~250 (10 msec.)	030
4	STA AUTO RLS TMR(sec) (000-300) : 060	For an internal call, the system will return a station to idle if the call remains unanswered for this duration.	000~300 (seconds)	060
5	UNSUPER CONF TMR(min) (00-99) : 10	This timer determines the duration of an “Unsupervised conference” before the station is recalled or the conference is dropped.	00~99 (minutes)	10
6	PRIME LINE TMR(sec) (01-20) : 05	This timer sets the delay (no action duration) for delayed Prime Line operation.	01~20 (seconds)	05
7	WINK SIGNAL TMR(10ms) (010-200) : 010	This timer sets the duration of the “Seize Acknowledge Signal” (Wink) sent to the PSTN on a DID line.	010~200 (10 msec.)	010
8	EN-BLOC I_DGT TMR(sec) (01-20) : 05	When an ISDN Line is assigned to send digits Enblock, **PGM CODE** 143-btn 3, the system will send the digits if the user dials “#” or this Enblock inter-digit timer expires.	01~20 (seconds)	05
9	DTMF DURATION TMR(10ms) (04-99) : 10	This timer establishes the duration of the DTMF tone sent on an analog CO Line.	04~99 (10 msec.)	10
10	FLEX DID TMR(100ms) (01-99): 30	The system will receive DID digits for this timer. After the timer expires, the system will use the last 2 to 4 digits received as the DID digits.	01~99 (100 msec.)	30

2.3.6.21 In-Room Indication -PGM Code 183-

The Supervisor Station can set the In-Room Indication for all members in the same Group up to 10 bins can be programmed, and each bin has (at most) 20 members excluding the Supervisor.

PROCEDURE:

IN ROOM INDICATION **ENTER BIN NO (01-10)**	1. Press the **[PGM]** button and dial 183.
IN ROOM INDICATION **F1:SUPERVISOR F2:MEM**	2. Use the dial-pad to enter the desired bin number.
Refer to Table 2.3.9.6-1 **DISPLAY**	3. Press the desired Flex button, refer to Table 2.3.9.6-1.
	4. Press the **[SAVE]** button to store the data entry.

Table 2.3.6.21-1 In-Room Indication (PGM 183)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	IN ROOM INDICATION SURERVISOR : STA 100	Assigns Supervisor station.		
2	STA 100 MEM 101 …. …. ….	This entry assigns stations as members		

2.3.6.22 DCOB SYS Timers -PGM Code 186-

A number of timers can be assigned to control and affect operation of E1 lines using R2 signaling. Refer to Table 2.3.6.222-1 for the timer descriptions and inputs required.

PROCEDURE:	
DCOB SYS ATTRIBUTES PRESS FLEX KEY (1-6)	1. Press the **[PGM]** button and dial 186.
Refer to Table 2.3.6.222-1 DISPLAY	Press the Flex button for the desired Timer, refer to Table 2.3.6.222-1.
	Use the dial-pad to enter the desired Timer data, refer to Table 2.3.6.222-1.
	Press the **[SAVE]** button to store the Timer data entry.

Table 2.3.6.222-1 DCOB SYSTEM TIMERS (PGM 186)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	R2 OUT MANAG TMR(sec) (01-50) : 14	Reserved for future usage for R2 timers.	01~50 (seconds)	14
2	R2 IN MANAG TMR(sec) (01-50) : 14	Reserved for future usage for R2 timers.	01~50 (seconds)	14
3	R2 DISAPPEAR TMR(sec) (01-50) : 14	Reserved for future usage for R2 timers.	01~50 (seconds)	14
4	R2 PULSE TMR(20msec) (01-30) : 07	Reserved for future usage for R2 timers.	01~30 (20 msec)	07
5	R2 READY TMR (20msec) (000-500) : 007	Reserved for future usage for R2 timers.	000~500 (20 msec)	07
6	DIAL TONE DELAY TMR (01-30) : 20	Reserved for future usage for R2 timers.	01~30 (msec)	20

2.3.6.23 NTP Attributes -PGM Code 195-

The system can employ the Network Time Protocol (NTP) or ISDN clock to synchronize the system time with the NTP time server or ISDN clock. The system requests the time from the NTP server at 10-minute intervals and then determines the time differential. If the system time is more 2 seconds off the NTP time, the system time is adjusted to synchronize with the NTP server time.

PROCEDURE:	
NTP ATTRIBUTES **PRESS FLEX KEY (1-1)**	1. Press the **[PGM]** button and dial 195
Refer to Table 2.3.6.233-1 **DISPLAY**	Press the Flex button for the desired NTP Attribute, refer to Table 2.3.6.233-1.
	Use the dial-pad to enter the desired data, refer to Table 2.3.6.233-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.6.233-1 NTP ATTRIBUTES

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	NETWORK TIME/DATE (0-2): DISABLE(0)	Sets time synchronization for the system as : Disable ISDN clock NTP, NTP Attributes are set only via the Web.	0:DISABLE 1: ISDN 2:NTP	0

2.3.7 STATION GROUP DATA - PGM CODES 190 & 192-

Stations can be grouped so that incoming calls will search (hunt) for an idle station in the group. The system allows assignment of three hunt processes, Circular, Terminal and UCD. In addition, there are eight (8) functional groups available: ACD (Automatic Call Distribution) based on UCD hunt, Ring, Call Pick-Up, External Voice Mail (SLT connected), VSF-Voice Mail, iPECS Feature Server Voice Mail, Network Voice Mail and UCS Groups.

The Station Group capacities for the iPECS system are shown in Table 2.3.7-1.

Table 2.3.7-1 STATION GROUP CAPACITY

ITEM	CAPACITY				
	iPECS-Micro	iPECS-50	MFIM100	MFIM300/600	MFIM1200
Number of Groups	12	40	40	48	100
Stations in a Group	26	50	70	70	200

Certain types of groups can incorporate announcements, which are given to the calling party. The system's VSF or VMIM can store up to seventy (70) announcements for use with Station Groups.

Note that a station can belong to multiple groups if the groups are all of the same type. Also note that when a station group is assigned to a group type (Hunt, ACD, VM, FS VM, VSF-VM, Net VM, UCS and Ring), the group attributes are initialized to the default values.

2.3.7.1 Station Group Assignment -PGM Code 190-

Under Station Group Assignments the type, members and Pick-Up attribute are assigned to the Station Group. Note for the Net VM group, the network number must be assigned as the Net VM group member station. Refer to Table 2.3.7.1-1 for a description of the functions, the LCD displays and data entries required.

PROCEDURE:	
STATION GRP ASSIGN **ENTER GRP NO(620-667)**	1. Press the **[PGM]** button and dial 190.
STATION GRP 620 **F1:TYPE F2:PKUP F3:MEM**	Use the dial pad to enter the desired Station Group number (620~631 for the iPECS-Micro, 620~659 for the iPECS-50 & MFIM100 and 620~667 for other MFIMs).
Refer to Table 2.3.7.1-1 **DISPLAY**	Press the Flex button for the desired setting; refer to Table 2.3.7.1-1.
	Use the dial pad to enter the desired Station Group data. Note for group members, enter a station or station range. For an individual station press the desired Flex button for the position of the station in the group and dial the station number. For a range, enter the first and last station number in the range.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.7.1-1 STATION GROUP ASSIGNMENT (PGM 190)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**STATION GRP 620** **CIRCULAR GROUP (00-10)**	This entry defines the type of station group.	00:Not Assign 01: Circular 02: Terminal 03: UCD/ACD 04: RING 05: Ext VM 06: PICK-UP 07: VSF-VM 08: FS VM 09: NET-VM 10:UCS Server	0
2	**GROUP 620 PICK-UP** **(1:ON/0:OFF) : OFF**	Stations can pick-up group calls ringing at other stations in the group. This does not apply to VSF groups.	0: OFF 1: ON	OFF
3	**CIRCULAR GROUP 620**	This entry assigns stations as members of a station group, or for Net VM, the Network number.		-

2.3.7.2 Station Group Attributes -PGM Code 191-

Each type of group has a different set of available attributes relating to announcements, timers, overflow, etc. Table 2.3.7.2-1 through Table 2.3.7.2-8 provide descriptions for the attributes, LCD displays and data entries required. The attributes for the Circular and Terminal Hunt groups are given in Table 2.3.7.2-1 and the UCD attributes include the ACD functions Table 2.3.7.2-2. In addition, there are no attributes for a group assigned as a Net VM group in **PGM CODE** 190.

PROCEDURE:	
STATION GRP ATT **ENTER GRP NO(620-667)**	1. Press the **[PGM]** button and dial 191.
{type} GRP 621 **PRESS FLEX_KEY (01-18)**	Use the dial pad to enter the desired Station Group (620~631 for the iPECS-Micro, 620~659 for the iPECS-50 & MFIM100 and 620~667 for other MFIMs). The system will display the type of group from the Station Group Assignment **PGM CODE** 190 data.
Refer to Table 2.3.7.2-1 to -7 **DISPLAY**	Press the Flex button for the desired attribute; refer to Table 2.3.7.2-1 to Table 2.3.7.2-8.
	Use the dial pad to enter the desired Group Attributes data, refer to Table 2.3.7.2-1 to Table 2.3.7.2-8.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.7.2-1 STATION GROUP ATTRIBUTES (PGM 191)
CIRCULAR & TERMINAL GROUPS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	CIRC 621 ANNC 1 TMR(1s) (000 - 999) : 015	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds 1st ANNounCement TiMeR, the call may be sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
2	CIRC 621 ANNC 2 TMR(1s) (000 - 999) : 000	After the 1st announcement, the 2nd ANNC TMR is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
3	CIRC 621 ANNC1 LOC VSF ANNC .. (00 – 70)	The Station Group can be assigned an announcement, which is played if the call remains queued beyond the ANNC 1 TMR duration. The announcement location is the VSF ANNC1 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
4	CIRC 621 ANNC2 LOC VSF ANNC .. (00 – 70)	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the ANNC 2 TMR duration. The announcement location is the VSF ANNC2 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none
5	CIRC 621 ANNC2 RPT TMR (000 - 999) : 000.	The 2nd announcement can be repeated to calls that remain in queue at intervals of the ANNounCement 2 RePeaT TiMeR. Note; repeating must be "ON" under button 6 below.	000~999 (seconds)	000
6	CIRC 621 ANNC 2 RPT (1: ON / 0: OFF): OFF	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the ANNounCement RePeaT TiMeR interval.	0: OFF 1: ON	OFF
7	CIRC 621 OVERFLOW DEST S/H/V/SPD (Dial 1-4)	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or will pass to the assigned OVerFLOW DESTination.	Station or Group Number, VSF Announce, System SPD	
8	CIRC 621 OVERFLOW TMR (000 - 600) : 180	A call to a group will remain at the last station in the group or can be sent to the assigned OVerFLOW DESTination after expiration of the OVERFLOW TiMeR	000~600 (seconds)	180
9	CIRC 621 WRAP-UP TMR (002 - 999) : 002	After terminating any call, a Group member will be maintained in a busy state for the duration of the WRAP-UP TiMeR.	002~999 (seconds)	002
10	CIRC 621 NO ANS TMR(1s) (00 – 99) : 15	Calls to a station in the group are directed to the station, if unavailable or unanswered in the NO ANSwer TiMeR, the call can be routed based on the assigned hunt process.	00~99 (seconds)	15
11	CIRC 621 PILOT HUNT (1 : ON/ 0: OFF) : ON	A circular/terminal hunt group can be set so that only calls to the pilot number (Station Group number) will hunt.	0: OFF 1: ON	ON
12	CIRC 621 RPT NO MEMBER (1 : ON/ 0: OFF) : OFF	If a call is received and no members are on-duty, an ICM call will return re-order tone, while a CO/IP call will be routed to the Attendant.	0: OFF 1: ON	OFF
13	CIRC 621 MUSIC SRC (00-10) : 00	A Music source is assigned so that calls to the group receive audio from the source in place of ring-back tone. Note Ext 2 is not available in the iPECS-Micro and iPECS-50. And VSF MOH is not available in the iPECS-Micro.	00: Ring-back 01: Int/Ext 1 (01: Record Play in iPECS-Micro) 02: Ext 2 03: VSF MOH 04: SLT MOH1 05:SLT MOH2 06:SLT MOH3 07:SLT MOH4 08:SLT MOH5 09:VSF MOH2 10:VSF MOH3	0
14	CIRC 621 MBR FORWARD (1 : ON/ 0: OFF) : ON	A member activating Call forward may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal.	0: OFF 1: ON	ON

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
15	MAILBOX MSG WAIT STA	When a group call overflows or routes to the VM group, a station number is used to identify the Mailbox for the Circular group messages.	Station	….
16	MAILBOX PASSWORD ……	The password associated with a group Mailbox is defined here. The password is used in conjunction with the Circular group as with a normal station.	12 digits	...
17	CIRC 621 FORCED DEST S/H/V/SPD (DIAL 1-4)	When a call is delivered to the group the system can redirect the call to the Forced destination if enabled under btn 18 below.	1-4	.
18	FORCED FWD DEST USAGE (1:ON/0:OFF): OFF	Enables the system to redirect group calls to the Forced destination defined under btn 17 above.	0: OFF 1: ON	OFF
19	WAIT IF 1ST ANNC BUSY (1:ON/0:OFF): ON	When a call assigned to receive an announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement.	0: OFF 1: ON	ON
20	GROUP NAME …….	An hunt group name can be designated.	12 character	….

Table 2.3.7.2-2 STATION GROUP ATTRIBUTES (PGM 191)
UCD/ACD GROUPS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ACD 622 ANNC 1 TMR(1s) (000 – 999) : 015	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds this 1st ANNounCement TiMeR, the call may be sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
2	ACD 622 ANNC 2 TMR(1s) (000 – 999) : 000	After the 1st announcement, a 2nd ANNC TMR is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
3	ACD 622 ANNC1 LOC VSF ANNC .. (00-70)	Each Station Hunt Group can be assigned an announcement, which is played if the call remains queued beyond the ANNC 1 TMR duration. The announcement location is a VSF ANNC1 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
4	ACD 622 ANNC2 LOC VSF ANNC .. (00-70)	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the ANNC 2 TMR duration. The announcement location is a VSF ANNC2 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none
5	ACD 622 ANNC2 RPT TMR (000 – 999) : 000	The 2nd announcement can be repeated to calls that remain in queue at intervals of the ANNounCement 2 RePeaT TiMeR. Note repeating must be "ON" under button 6 below.	000~999 (seconds)	000
6	ACD 622 ANNC2 RPT (1: ON / 0: OFF): OFF	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the ANNounCement RePeaT TiMeR interval.	0: OFF 1: ON	OFF
7	ACD 622 OVERFLOW DEST S/H/V/SPD (Dial 1-4)	A call to the group will continue to route through the group until answered or all group members have been tried. The call will then queue to the group or route to the assigned OVerFLOW DESTination.	Station or Group Number, VSF Announce, System SPD	
8	ACD 622 OVERFLOW TMR (000 - 600) : 180	A call to a group will remain queued to the group or be sent to the assigned OVerFLOW DESTination after expiration of the OVERFLOW TiMeR	000~600 (seconds)	180
9	ACD 622 WRAP-UP TMR (002 - 999) : 002	After terminating any call, a Hunt Group member will be maintained in a busy state for the duration of the WRAP-UP TiMeR.	002~999 (seconds)	002
10	ACD 622 RPT NO MEMBER (1 : ON/ 0: OFF) : OFF	If a call is received and no members are on-duty, an ICM call will return re-order tone, while a CO/IP call will be routed to Attendant.	0: OFF 1: ON	OFF
11	ACD 622 MUSIC SRC (00– 0) : 00	A Music source can be assigned so that calls to the group will receive audio from the assigned source in place of ring-back tone while in Queue. Note Ext 2 is not available in the iPECS-Micro and iPECS-50. And VSF MOH is not available in the iPECS-Micro.	00: none 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0
12	ACD 622 ACD WARN TONE (1 : ON/ 0: OFF) : ON	An ACD supervisor can monitor agent conversations. A warning tone can be provided to the agent and connected party when the supervisor activates the monitor feature.	0: OFF 1: ON	ON
13	ACD 622 ALTER DEST S/H/SPD (Dial 1-3)	When a call comes into the group and there are no group members available, the call will be routed to the assigned alternate destination.	Station or Grp Number, System SPD	....

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
14	ACD 622 SP-VISOR TMR (000-999) : 030	When calls have been in queue longer than the Supervisor Timer, the ACD supervisor is notified by a display of the longest queue time.	000~999 (seconds)	030
15	ACD 622 SP-VISOR C-CNT (00-99) : 00	When the number of calls in queue exceeds the Supervisor Call Counts, the ACD Supervisor is notified by a display of queued calls count.	00~99	00
16	WAIT IF 1ST ANNC BUSY (1:ON/0:OFF): ON	When a call assigned to receive an announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement.	0: OFF 1: ON	ON
17	ACD 622 MAX QUE C-CNT (00-99) : 99	When the number of calls queued to the group match this parameter, new calls will receive error tone and be disconnected after the VSF AA announcement, if assigned, is played.	00-99	99
18	ACD 622 SUPERVISOR …. …. …. ….	Any valid IP Phone can be assigned as a Supervisor, max. 5 ACD Supervisors.	Station	....
19	100 110 123 124 0 0 0 0	ACD Group members may be assigned a priority, 0-9. Members with the highest priority are sent calls ahead of lower priority members. This field is the same as **PGM CODE** 112-btn 16.	0~9	0
20	ACD 622 ACD_DND W_TMR (002-200) : 010	ACD agents are placed in the Wrap-up mode for the Wrap-up timer duration after call completion.	002~200 sec	010
21	ACD 622 ICLID USAGE (1:ON/0:OFF) : OFF	Within 5 seconds of a guaranteed announcement, the caller may dial digits as an ICLID. The User dialed digits are compared to the ICLID Table entries, **PGM CODE** 203 for routing or, for a single dialed digit, to the ACD CCR table **PGM CODE** 191 Btn 23.	0: OFF 1: ON	OFF
22	GROUP NAME ……	An ACD group name can be designated.	12 character	..
23	ACD 622 CIQ ROUTE PRESS FLEX KEY (01-10)	CCR for ACD Calls-in-queue permits caller to re-route the call by dialing a single digit. The destination is assigned to Flex button 1 ~ 10 for digits 1 ~ 9 & 0.	FLEX 1 ~ FLEX 10	
23-1 ~23-10	ACD 622 CIQ ROUTE INPUT 1 : NOT ASSIGNED	When an ACD call is queued and the caller may exit this queue by entering one digit. The queued call can be routed to station, hunt, system-speed bin, or network station. Dial 1: Enter a station number. Dial 2: Enter a hunt group number. Dial 3: Enter a system speed bin. Dial 4: Enter a network station number.	.	.
24	ACD 622 ADDED ATTR PRESS FLEX KEY (01-23)	To select an ACD group “Added Attribute”, press flex btn 24, then select btn 1~23 for the attribute desired.	FLEX 1 ~ FLEX 23	

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
24-1	ZAP TONE (1:ON/0:OFF) : OFF	Agents, using a headset can have ACD calls connected to them automatically preceded by a tone (Zap tone).	0: OFF 1: ON	OFF
24-2	MAILBOX MSG WAIT STN ….	When an ACD call overflows or routes to the VM group, a station number is used to identify the Mailbox for the ACD group messages.	Station	….
24-3	MAILBOX PASSWORD ……	The password associated with an ACD group Mailbox is defined here. The password is used in conjunction with the ACD group as with a normal station.	12 digits	...
24-4	CIQ AGENT DISPLAY (1:ON/0:OFF) : OFF	When an ACD call is in queue, the Call in queue information can be displayed on LCD of agent and supervisor telephones.	0: OFF 1: ON	OFF
24-5	FORCED FWD DEST USAGE (1:ON/0:OFF): OFF	Enables the system to redirect group calls to the Forced destination defined under btn 24-24 below.	0: OFF 1: ON	OFF
24-6	CIQ #1 THRESHOLD (00-99) : 10	If the queued call count exceeds the threshold, the system plays the CIQ #1 Announcement (btn 7 below) to the CIQ #1 Page Zone (btn 8 below) after the CIQ #1 Announcement Delay Timer (btn 9 below). Announcements are repeated at intervals of the CIQ #1 Announcement Repeat Timer (btn 10 below).	00-99	10
24-7	CIQ #1 ANNC LOC VSF ANNC .. (00-70)	VSF announcement number for the CIQ #1 Announcement.	00-70	..
24-8	CIQ #1 PAGE ZONE (00-40) : 00	Page Zone to receive CIQ #1 Announcement.	00~15 or 00-40	00
24-9	CIQ #1 ANNC DELAY TMR (000-180) : 015	Delay timer for CIQ #1 Announcement.	000-180	015
24-10	CIQ #1 ANNC REPEAT TMR (000-180) : 045	Interval for repeating the CIQ #1 Announcement.	(1 180	045
24-11	CIQ #2 THRESHOLD (00-99) : 20	If the queued call count exceeds the threshold, the system plays the CIQ #2 Announcement (btn 12 below) to the CIQ #2 Page Zone (btn 13 below) after the CIQ #2 Announcement Delay Timer (btn 14 below). Announcements are repeated at intervals of the CIQ #2 Announcement Repeat Timer (btn 15 below).	00-99	20
24-12	CIQ #2 ANNC LOC VSF ANNC .. (00-70)	VSF announcement number for the CIQ #2 Announcement.	00-70	..
24-13	CIQ #2 PAGE ZONE (00-40) : 00	Page Zone to receive CIQ #2 Announcement.	00~15 or 00-40	00
24-14	CIQ #2 ANNC DELAY TMR (000-180) : 015	Delay timer for CIQ #2 Announcement.	000-180	015

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
24-15	CIQ #2 ANNC REPEAT TMR (000-180) : 025	Interval for repeating the CIQ #2 Announcement.	000-180	025
24-16	CIQ #3 THRESHOLD (00-99) : 30	If the queued call count exceeds the threshold, the system plays the CIQ #3 Announcement (btn 17 below) to the CIQ #3 Page Zone (btn 18 below) after the CIQ #3 Announcement Delay Timer (btn 19 below). Announcements are repeated at intervals of the CIQ #3 Announcement Repeat Timer (btn 20 below).	00-99	30
24-17	CIQ #3 ANNC LOC VSF ANNC .. (00-70)	VSF announcement number for the CIQ #3 Announcement.	00-70	..
24-18	CIQ #3 PAGE ZONE (00-40) : 00	Page Zone to receive CIQ #3 Announcement.	00~15 or 00-40	00
24-19	CIQ #3 ANNC DELAY TMR (000-180) : 015	Delay timer for CIQ #3 Announcement.	000-180	015
24-20	CIQ #3 ANNC REPEAT TMR (000-180) : 005	Interval for repeating the CIQ #3 Announcement.	000-180	005
24-21	CIQ MENT ON/OFF (1:ON/0:OFF) : OFF	If enabled, queued callers receive the CIQ message (You are # in queue) after the 1st and 2nd announcement.	1: ON 0: OFF	OFF
24-22	ACD NO ANS TMR (000-180) : 000	Calls to an agent in the group are directed to the station, if unanswered in the NO ANSWER TIMER, the call is routed to another agent	000-180	000
24-23	ACD 622 MBR FORWARD (1 : ON/ 0: OFF) : ON	A member activating Call Forward may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal.	0: OFF 1: ON	ON
24-24	ACD 622 FORCED DEST S/H/V/SPD (DIAL 1-4)	When a call is delivered to the group the system can redirect the call to the Forced destination, if enabled under btn 24-5 above.	1-4	.

Table 2.3.7.2-3 STATION GROUP ATTRIBUTES (PGM 191)
RING GROUPS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	RING 624 ANNC1 TMR(1s) (000 – 999) : 015	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds this 1st ANNounCement TiMeR, the call may be sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	RING 624 ANNC 2 TMR(1s) (000 – 999) : 000	After the 1st announcement, a 2nd ANNC TMR is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
3	RING 624 ANNC1 LOC VSF ANNC .. (00-70)	Each Ring Group can be assigned an announcement, which is played if the call remains queued beyond the ANNC 1 TMR duration. The announcement location is a VSF ANNC1 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none
4	RING 624 ANNC2 LOC VSF ANNC .. (00-70)	The Ring Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the ANNC 2 TMR duration. The announcement location is a VSF ANNC2 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~-70	00: none
5	RING 624 ANNC2 RPT TMR (000 – 999) : 000	The 2nd announcement can be repeated to calls that remain in queue at intervals of the ANNounCement 2 RePeaT TiMeR. Note repeating must be "ON" under button 6 below.	000~999 (seconds)	000
6	RING 624 ANNC2 RPT (1: ON / 0: OFF): OFF	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the ANNounCement RePeaT TiMeR interval.	0: OFF 1: ON	OFF
7	RING 624 OVERFLOW DEST S/H/V/SPD (Dial 1-4)	A call to the group rings at member stations until the Overflow timer expires then the call passes to the assigned OVerFLOW DESTination.	Station or Grp Number, VSF Announce, System SPD	
8	RING 624 OVERFLOW TMR (000 - 600) : 180	A call to a ring group will continue to ring stations in the group or be sent to the assigned OVerFLOW DESTination after expiration of the OVERFLOW TiMeR	000~600 (seconds)	180
9	RING 624 WRAP-UP TMR (002 - 999) : 002	After terminating any call, a Ring Group member will be maintained in a busy state for the duration of the WRAP-UP TiMeR.	002~999 (seconds)	002
10	RING 624 MUSIC SRC (00-10) : 00	A Music source is assigned so that calls to the group will receive audio from the assigned source in place of ring-back tone. Note Ext 2 is not available in the iPECS-Micro and iPECS-50. And VSF MOH is not available in the iPECS-Micro.	00: none 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	0

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
11	RING 624 MAX QUE C-CNT (00-99) : 99	When the number of calls queued is reached, new calls will receive error tone and be disconnected after the VSF AA announcement, if assigned, is played.	00-99	99
12	RING 624 MBR FORWARD (1 : ON/ 0: OFF) : ON	A member activating Call Forward may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal.	0: OFF 1: ON	ON
13	MAILBOX MSG WAIT STA	When a group call overflows or routes to the VM group, a station number is used to identify the Mailbox for the Ring group messages.	Station	….
14	MAILBOX PASSWORD ……	The password associated with a group Mailbox is defined here. The password is used in conjunction with the Ring group as with a normal station.	12 digits	...
15	RING 621 FORCED DEST S/H/V/SPD (DIAL 1-4)	When a call is delivered to the group the system can redirect the call to the Forced destination if enabled under btn 16 below.	1-4	.
16	FORCED FWD DEST USAGE (1:ON/0:OFF): OFF	Enables the system to redirect group calls to the Forced destination defined under btn 15 above.	0: OFF 1: ON	OFF
17	WAIT IF 1ST ANNC BUSY (1:ON/0:OFF): ON	When a call assigned to receive an announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement.	0: OFF 1: ON	ON
18	GROUP NAME …….	An Ring group name can be designated.	12 character	….

Table 2.3.7.2-4 STATION GROUP ATTRIBUTES (PGM 191)
EXTERNAL VM GROUPS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	VM 626 WRAP-UP TMR (002 – 999) : 002	After terminating any call, the VM port will be maintained in a busy state for the duration of the WRAP-UP TiMeR.	002~999 (seconds)	002
2	VM 626 PUT MAIL INDEX (1 – 4) : 1	For external analog Voice Mail groups, an index to the Voice Mail Dial Table, which contains the “Put Mail” dial code.	1~4	1
3	VM 626 GET MAIL INDEX (1 – 4) : 2	For external analog Voice Mail groups, an index to the Voice Mail Dial Table, which contains the “Get Mail” dial code.	1~4	2
4	VM 626 HUNT TYPE (1 : CIR/ 0 : TERM): TERM	The type of Hunt process applied to the SLT ports connected to the VM can be assigned as Circular or Terminal.	0: TERM 1: CIRC	TERM
5	VM 626 OVERFLOW TMR (000 - 600) : 180	A call to a group will remain queued to the group or be sent to the assigned OVERFLOW DEST after expiration of the OVERFLOW TMR	000~600 (seconds)	180
6	VM 626 OVERFLOW DEST S/H/V/SPD (Dial 1-4)	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or routes to the assigned OVERFLOW DEST.	Station or Grp Number, VSF Announce, System SPD	-
7	FORCED FWD DEST USAGE (1:ON/0:OFF): OFF	When a call is delivered to the group the system can redirect the call to the Forced destination if enabled under btn 8 below.	0: OFF 1: ON	OFF

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
8	VM 621 FORCED DEST S/H/V/SPD (DIAL 1-4)	Enables the system to redirect group calls to the Forced destination defined under btn 7 above.	1-4	.
9	GROUP NAME …….	An hunt group name can be designated.	12 character	….

Table 2.3.7.2-5 STATION GROUP ATTRIBUTES (PGM 191)
PICK-UP GROUPS

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	PICK UP 625 AUTO PICKUP (1 : ON/ 0: OFF) : OFF	If a Pick-Up Group member is ringing, another member of the Pick-Up Group can Pick-Up a call ringing at another member by simply going "off-hook".	0: OFF 1: ON	OFF
2	PICK UP 625 ALL RING (1 : ON/ 0: OFF) : OFF	When a call is offered to a member of the Pick-Up Group in the Tone Ring mode, all members will ring. Note Auto Pickup, Button 1 must be "ON".	0: OFF 1: ON	OFF

Table 2.3.7.2-6 STATION GROUP ATTRIBUTES (PGM 191)
VSF/VMIM-VM GROUP

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	VSF-VM 626 TIME SET(1d) (001 – 365) : 365	When voice messages are stored in the VSF, the system will maintain (store) the message for the maximum number of days set in this program (1 to 365 days). (Not used currently)	001-365 (day)	365
2	VSF-VM 626 TIME OUT(1s) (00 – 15) : 15	This timer determines the inter-digit time employed during a VSF-VM session. If this timer expires while the VSF-VM is awaiting user input, the system will assume the remote party has disconnected and will return the channel to idle.	00-15 (seconds)	15

Table 2.3.7.2-7 STATION GROUP ATTRIBUTES (PGM 191)
FEATURE SERVER VM GROUP

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	FS-VM 624 ANNC 1 TMR(1s) (000 - 999) : 015	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds this 1st ANNounCement TiMeR, the call may be sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
2	FS-VM 624 ANNC 2 TMR(1s) (000 - 999) : 000	After the 1st announcement, the 2nd ANNC TMR is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
3	FS-VM 624 ANNC1 LOC VSF ANNC .. (00 – 70)	The Station Group can be assigned an announcement, which is played if the call remains queued beyond the ANNC 1 TMR duration. The announcement location is the VSF ANNC1 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
4	FS-VM 624 ANNC2 LOC VSF ANNC .. (00 – 70)	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the ANNC 2 TMR duration. The announcement location is the VSF ANNC2 number. An entry of 00 indicates no announcement. Including '#' at the end of an entry instructs the system to disconnect after the announcement.	00~70	00: none
5	FS-VM 624 ANNC2 RPT TMR (000 - 999) : 000.	The 2nd announcement can be repeated to calls that remain in queue at intervals of the ANNounCement 2 RePeaT TiMeR. Note; repeating must be "ON" under button 6 below.	000~999 (seconds)	000
6	FS-VM 624 ANNC 2 RPT (1: ON / 0: OFF): OFF	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the ANNounCement RePeaT TiMeR interval.	0: OFF 1: ON	OFF
7	FS-VM 624 OVERFLOW DES S/H/V/SPD (Dial 1-4)	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or routes to the assigned OVerFLOW DESTination.	Station or Grp Number, VSF Announce, System SPD	
8	FS-VM 624 OVERFLOW TMR (000 - 600) : 180	A call to a group will remain at the last station in the group or can be sent to the assigned OVerFLOW DESTination after expiration of the OVERFLOW TiMeR	000~600 (seconds)	180
9	FS-VM 624 NO ANS TMR(1s) (00 – 99) : 15	Calls to a station in the group are directed to the station, if unavailable or unanswered in the NO ANSwer TiMeR, the call can be routed based on the assigned hunt process.	00~99 (seconds)	15
10	FS-VM 624 PILOT HUNT (1 : ON/ 0: OFF) : ON	A FS VM group can be set so that only calls to the pilot number (station group number) will hunt.	0: OFF 1: ON	ON
11	FS-VM 524 ALTER DEST STA/HUNT	When a call comes into the group and there are no group members available, the call will be routed to the assigned ALTERnate DESTination.	Station or Group Number	....
12	FS-VM 624 HUNT TYPE (1 : CIRC/ 0 : TERM): TERM	When a call is offered to the group, the Hunt process can be defined for Circular or Terminal hunt.	0: TERM 1: CIR	TERM
13	FS-VM 624 WRAP-UP TMR (002 – 999) : 002	After terminating any call, the VM port will be maintained in a busy state for the duration of the WRAP-UP TiMeR.	002~999 (seconds)	002
14	FORCED FWD DEST USAGE (1:ON/0:OFF): OFF	Enables the system to redirect group calls to the Forced destination defined under btn 15 below.	0: OFF 1: ON	OFF
15	FS-VM 621 FORCED DEST S/H/V/SPD (DIAL 1-4)	When a call is delivered to the group the system can redirect the call to the Forced destination if enabled under btn 14 above.	1-4	.
16	GROUP NAME ……	An hunt group name can be designated.	12 character	….

Table 2.3.7.2-8 STATION GROUP ATTRIBUTES (PGM 191)
UCS SERVER GROUP

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	UCS SVR [620] ASSIGNED UCS SERVER .. (01–16)	UCS Server number, this value must be set to 1.	00-16	1

2.3.7.3 Pick Up Group Assignment -PGM Code 192-

Under Pick Up Group Assignments members are assigned to the Station Pick Up Group. Refer to Table 2.3.7.3-1 for a description of the functions, the LCD displays and data entries required.

The Station Pick up Group capacities for the iPECS system are shown in Table 2.3.7.3 as below.

Table 2.3.7.3 STATION PICK-UP GROUP CAPACITY

ITEM	CAPACITY					
	iPECS-Micro	iPECS-50	MFIM100	MFIM300	MFIM600	MFIM1200
Number of Pickup Groups	20	20	30	100	150	200
Stations in a Group	26	50	70	300	600	1200

PROCEDURE:

PICKUP GRP ASSIGN **ENTER GRP NUM(00-99)**	1. Press the **[PGM]** button and dial 192.
PICKUP GRP 00	2. Use the dial pad to enter the desired Pickup Group (00~19 for the iPECS-Micro and iPECS-50, 00~29 for the MFIM100 and 00~99 for the MFIM300 and 000~149 for the MFIM600 and 000~199 for the MFIM1200). The system will display the member of pickup group.
Refer to Table 2.3.7.2-13-1 DISPLAY	3. Note for group members, enter a station or station range. For an individual station press the desired Flex button for the position of the station in the group and dial the station number. For a range, enter the first and last station number in the range
	4. Press the **[SAVE]** button to store the data entry.

Table 2.3.7.33-1 PICKUP GROUP ASSIGNMENT (PGM 192)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	PICKUP GRP 00	This entry assigns stations as members of a station pickup group, or for Net VM, the Network number.		-

2.3.8 ISDN LINE & ICLID ROUTING DATA – PGM CODES 200-205-

Each ISDN (Integrated Services Digital Network) Line provides digital services to the end-user. Basic Rate Lines have three (3) channels, 2 B channels and a D channel. The 2 B channels provide 64 Kbps each, a total of 128 Kbps for "Bearer" or voice channels. The D channel provides a 16 Kbps signaling channel. Primary Rate Lines have 23/30 64 Kbps 'B' channels and 1/2 64 Kbps signaling channels. For proper operation, entries are required for various attributes in **PGM CODES** 200 ~ 202 to match the ISDN circuit and services from the PSTN.

2.3.8.1 ISDN Attributes -PGM Code 200-

ISDN attributes define several characteristics of the ISDN interface. ISDN call cost services (Advice of Charge), CLI modification, voice encoding, and other characteristics of the interface are defined.

PROCEDURE:	
SYSTEM ISDN ATT **PRESS FLEX_KEY (1-2)**	1. Press the **[PGM]** button and dial 200.
Refer to Table 2.3.8.1-1 **DISPLAY**	Press the Flex button for the desired Attribute; refer to Table 2.3.8.1-1.
	Use the dial pad to enter the desired Attribute data.
	Press the **[SAVE]** button to store the Attribute data entry.

Table 2.3.8.1-1 ISDN LINE ATTRIBUTES (PGM 200)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`CO ATD CODE (2DGT)` `..`	When the system is set to send the station number with ISDN CLIP or COLP, either the station number or this ATD code will be sent based on **PGM CODE** 114 button 11.	1~2 digits	
2	`CLI PRINT TO SERIAL` `(1:ON/0:OFF) : OFF`	The ISDN Calling Line Id may be included in call records output over the serial port assigned for "Call Information", **PGM CODE** 175 btn 5.	0: OFF 1: ON	OFF

2.3.8.2 CLIP/COLP Table -PGM Code 201-

Normally, the system will send the primary Directory Number of the ISDN Line in the ISDN call SETUP and CONNECT messages to identify the caller (CLIP) or the answering (COLP) party respectively. Under certain circumstances, it may be desirable to provide a secondary or DID number for the ISDN Line. In these cases, the CLIP/COLP Table may be used to define the digits sent. The number sent is selected based on the index assigned for the ISDN Line under CO/IP Attributes III (**PGM CODE** 143).

For the CLIP/COLP Table entry, the CLI Station Number (**PGM CODE** 114) is sent in place of the station number. For all other CLIP/COLP Table entries, the station number is sent as a suffix to the number in the Table. There are 10 available entries for the iPECS-Micro, iPECS-50 and MFIM100 and 50 available entries for all other MFIM models. Note that this number is sent only if CLIR and COLR are disabled under the CLIR Service and COLR Service assignments in the

Station ISDN Attributes (**PGM CODE** 114).

PROCEDURE:	
CLIP/COLP TABLE ENTRY **ENTER BIN NO (0 – 9)**	1. Press the **[PGM]** button and dial 201.
CLIP/COLP TABLE 05 **…….**	Use the dial pad to enter the desired Bin number (00-09 for the iPECS-Micro & iPECS-50 & MFIM100 or 00-49 for other MFIMs).
	Use the dial pad to enter the desired CLIP/COLP data, maximum 10 digits.
	Press the **[SAVE]** button to store the CLIP/COLP data entry.

2.3.8.3 MSN Table -PGM Code 202-

When an ISDN Line assigned for DID operation, receives an incoming call, the call will be routed to a station based on the Flexible DID Table Index in the MSN Table. The iPECS-Micro, iPECS-50 and MFIM100 provide for 250 entries and other MFIMs provide for up to 500 entries.

PROCEDURE:	
MSN TABLE ATT **ENTER BIN NO (001 – 250)**	1. Press the **[PGM]** button and dial 202.
MSN TABLE 121 **PRESS FLEX_KEY (1 – 3)**	Use the dial pad to enter a MSN Table index number (001~250 for the iPECS-Micro & IPECS-50 & MFIM100 & or 001~500 for other MFIMs).
Refer to Table 2.3.8.3-1 **DISPLAY**	Press the Flex button for the desired MSN Table entry; refer to Table 2.3.8.3-1.
	Use the dial pad to enter the desired Table data.
	Press the **[SAVE]** button to store the Table data entry.

Table 2.3.8.3-1 MSN ATTRIBUTES (PGM 202)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**MSN TABLE 121 CO RANGE** **… - …**	CO Line number associated with the MSN.	iPECS-Micro 01~05 iPECS-50 MFIM100 01~42 MFIM300 01~200 MFIM600 01~400 MFIM1200 01~600	None
2	**MSN TABLE 121** **INDEX : 100**	Index to the Flexible DID Table, **PGM CODE** 231	000~999	None
3	**TABLE 121 TEL NUMBER** **……..**	Telephone Number (called number)	23 Digits	None

2.3.8.4 ICLID Route Table -PGM Code 203-

The system can employ ICLID (Incoming Calling Line Id) to determine the routing of incoming external calls. Each CO/IP Line and ACD group may be assigned to employ ICLID routing. The system will compare the received ICLID to entries in the ICLID Route Table and, if a match is found, will route the call to the destination indicated by the index (bin) number of **PGM CODE** 204.

PROCEDURE:	
ICLID ROUTE TABLE ATT **ENTER BIN NO (001-250)**	1. Press the **[PGM]** button and dial 203.
ICLID ROUTE TABLE 001 **PRESS FLEX KEY (1-4)**	To program ICLID Route table, dial Bin No (001 – 250).
Refer to Table 2.3.8.4-1 **DISPLAY**	Press the Flex button for the desired ICLID Table entry; refer to Table 2.3.8.4-1.
	Use the dial pad to enter the desired Table data
	Press the **[SAVE]** button to store the Table data entry.

Table 2.3.8.4-1 ICLID ROUTE INDEX (PGM 203)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`ROUTE TABLE 001` `INDEX : NOT_ASSIGNED`	Index to the ICLID Ring Assignment Table **PGM CODE** 204 that determines the call routing.	001~250-	None
2	`TABLE 001 ICLID NUMBER` `……..`	ICLID (Incoming Caller Id) to match for the index. If the Caller Id matches the Table entry, the index is used to select the route from **PGM CODE** 204.	24-digits 0 ~ 9 & '*' and '#' as a wild-card.	None
3	`TABLE 001 ICLID NAME` `……..`	ICLID name that is sent by the system to the destination for the ICLID routed call.	12. Character	None
4	`TABLE 001 ICLID TONE` `..`	If the ICLID Number is matched with CID of caller, the Ring tone is followd this ICLID Tone..	2 digits. 01~12	None

2.3.8.5 ICLID Ring Assignment -PGM Code 204-

If the Incoming Caller ID matches an entry in the ICLID Route Table, the index from the Table is used to determine the call routing from the ICLID Ring Assignment Table. Separate ring assignments are made for Day, Night, and Timed Ring mode for each index, 001 to 250, in this table. When assigned to ring to a VSF/VMIM announcement, the call can be automatically dropped after the announcement by entering '#' after the announcement number.

When CO Lines are programmed to Ring an external AA/VM, VSF or Feature Server Group as an Automated Attendant, the Ring signal can be on an immediate or delayed basis allowing other stations/groups to be assigned Ring and answer prior to signaling the AA. The delay is defined in seconds from 00 to 30.

PROCEDURE:	
ICLID RING ASN TBL ATT **ENTER BIN NO (001-250)**	1. Press the **[PGM]** button and dial 204.
PRESS KEY **DAY NIGHT TIMED-R**	Use the dial pad to enter the Index or Bin number (001 – 250).
	Press the desired Flex button: Button 1: Day Ring Button 2: Night Ring Button 3: Timed Ring
	Use the dial pad to select the destination type: Dial 1: Station Dial 2: Hunt Group Dial 3: VSF/VMIM Announcement Dial 4: AA Ring Time
	Use the dial pad to enter a value for the selected destination type.
	Press the **[SAVE]** button to store the data entry.

2.3.8.6 ISDN PPP Web Admin Attributes -PGM Code 205-

In addition to remote access via an IP network connection, the system database may be accessed remotely via an ISDN connection. Placing a call over an ISDN Line to the designated PPP Station will provide a connection to the system database. The system will request a user id and password, which must match one of the User Ids and passwords assigned. After matching id and password are entered, the iPECS Home page is provided and Web Admin is available as explained in section 3.

PROCEDURE:	
PPP ATTRIBUTES **PRESS FLEX KEY (1-7)**	1. Press the **[PGM]** button and dial 205.
Refer to Table 2.3.8.6-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.8.6-1
	Used the dial pad to enter desired data, refer to Table 2.3.8.6-1 for appropriate entries.
	Press the **[SAVE]** button to store the data entry

Table 2.3.8.6-1 PPP ATTRIBUTES (PGM 205)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**PPP DEST STA** **….**	If the incoming capability is 64 Kbps unrestricted digital and the called party number matches the PPP destination, the system will automatically answer the call and request PPP ID and password.	Station number	None
2	**PPP USER ID 1** **…….**	System accepts this PPP ID 1	12. Character	likppp01
3	**PPP PASSWORD 1** **……..**	The password entered is used to authorize PPP ID 1.	12. Character	Ipkts01
4	**PPP USER ID 2** **…….**	System accepts this PPP ID 2	12. Character	likppp02
5	**PPP PASSWORD 2** **……..**	The password entered is used to authorize PPP ID 2.	12. Character	Ipkts02
6	**PPP IP ADDR** **0.0.0.0**	Operator can configure PPP IP Address with this option. To apply this option, system must be restarted.		
7	**PPP PtoP IP ADDR** **0.0.0.0**	Operator can configure PPP Point to Point IP Address with this option. To apply this option, system must be restarted.		

2.3.9 TABLES DATA – PGM CODES 220 to 235 –

2.3.9.1 LCR Assignment Tables –PGM Codes 220 to 223–

The LCR Tables provide a mechanism to define the database, which will route outgoing calls, particularly long distance, using the most cost effective route. User dialed digits are compared to table entries and modified appropriately based on time of day, day of week, and assigned routes. There are four LCR Tables, LCR Control Attributes, LCR Leading Digit Table, LCR Digit Modification Table, and LCR Initialization Table.

2.3.9.1.1 LCR Control Attributes -PGM Code 220-

The LCR Control Attributes, among others items, allows access to the LCR Access Mode assignments. The LCR Access Modes define the user operations that will access the LCR feature. The LCR Access Modes are:

Mode 00: LCR Disabled
Mode 01: Loop (user dials '9' or CO/IP Group code (8xx) or presses a Loop button)
Mode 02 Loop and Internal (user dials digits without a CO/IP Access Code prefix)
Mode 11: Loop and Direct CO Line (user dialed CO Line Access Code (88xx for iPECS-Micro & iPECS-50 & MFIM100 or 88xxx for other MFIM models), or presses **{CO}** button).
Mode 12: Loop, Direct CO Line, and Internal
Mode 13: Loop, Direct CO Line, Internal and Direct

In addition, days of the week are grouped into zones (Day Zones) and the time of day can be set into three groups (Time Zones). Table 2.3.9.1.1-1 provides general descriptive information and input ranges.

PROCEDURE:	
LCR CONTROL ATTRIBUTES PRESS FLEX KEY (1-5)	1. Press the **[PGM]** button and dial 220.
Refer to Table 2.3.9.1.1-1 DISPLAY	Press Flex button 1~5, refer to Table 2.3.9.1.1-1.
	For LCR Access Mode and Time Zones, use the dial-pad to enter desired data and proceed to step 5). Refer to Table 2.3.9.1.1-1 for input ranges. For Day Zones press the Flex button 1~7 to select the day of week, Monday: Flex button 1 to Sunday: Flex button 7.
	For Day Zones, after selecting the desired day of week Flex button, use the dial pad to enter the desired zone, 1~3.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.1.1-1 LCR CONTROL ATTRIBUTES (PGM 220)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	LCR ACCESS MODE (1-6) (M00) DISABLE LCR	This entry defines the effective LCR modes, the modes by which the user can access LCR.	M00: 1 M01: 2 M02: 3 M11: 4 M12: 5 M13: 6	1
2	DAY ZN 1:1234567 2: 3: M1 T2 W3 T4 F5 SA6 SU7	For each day of the week, a Day Zone (1 to 3) is assigned. The active Day Zone is the Zone assigned to the current day of the week (Flex button 1~7).	Flex 1~7 + 1~3	Zone 1: all days of the week
3	TIME ZONE 1 1:00-24 :	This entry defines the hours of the day during which Time Zone 1 is active. Note hours not defined in Time Zone 2 and 3 are automatically part of Time Zone 1.	00~24	00-24
4	TIME ZONE 2 1:00-24 2 :	This entry defines the hours of the day during which Time Zone 2 is active.	00~24	
5	TIME ZONE 3 1:00-24 3 :	This entry defines the hours of the day during which Time Zone 3 is active.	00~24	

2.3.9.1.2 LCR Leading Digit Table -PGM Code 221-

The Leading Digit Table is used to analyze the user-dialed digits to determine an appropriate Digit Modification Table Index. The Table is divided into bins. The applicable LCR Access Modes (LCR Type) and the digits (up to the first 12) to be compared with the number dialed by the user are entered in the Leading Digit Table bin. In addition, indices to the Digit Modification Table are defined for each Time Zone of each Day Zone; refer to LCR Control Attributes **PGM CODE** 220. Note the mode used to access LCR must match the LCR Type and must be within the effective LCR Access Mode assigned in **PGM CODE** 220 to access the Digit Modification Table index. The allowed LCR Types are:

CO Line or Loop access: User dials CO Line Access Code (88xx for iPECS-Micro, iPECS-50 and MFIM100 or 88xxx for other MFIMs), CO/IP Group Access Code (8xx), Any CO Line Access Code '9', or presses a CO Line, CO/IP Group or Loop button.

Internal: User dials outgoing call while receiving Intercom dial tone with no CO/IP access code.

Both: both COL and Internal

In addition, each Leading Digit Table bin has the option to require an authorization code entry. When the user-dialed digits match an entry in the LCR Leading Digit Table, the system will check the Authorization option for the LDT Table bin. If the Authorization option is enabled, the user must enter a valid Authorization code to place the call.

PROCEDURE:	
LDT TABLE ENTER LDT BIN (000)	1. Press the **[PGM]** button and dial 221.
000 BOTH CD: . . . . . . DMT:	The system displays the first available bin (000~249) of the Leading Digits Table. To select a different bin, use the dial pad to enter the desired bin number.
Refer to Table 2.3.9.1.2-1 DISPLAY	Press the desired Flex button (1~6), refer to Table 2.3.9.1.2-1
	Use the dial pad to enter the desired Leading Digit Table data, refer to Table 2.3.9.1.2-1.
	Press the **[SAVE]** button to store the data entry. Note, as the data is stored, the system sorts the LDT bins in ascending order to allow rapid "look-up" of data. Thus, the bin number will be changed appropriately.

Table 2.3.9.1.2-1 LCR LEADING DIGITS (PGM 221)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	LDT 000 : LCR TYPE LCR MODE : COL (2)	This entry defines the LCR modes that will apply to this Leading Digit Table bin. To apply the DMT index, the LCR Type must be part of the LCR Mode defined in **PGM CODE** 220.	1: Internal 2: CO Line 3: Both	3: Both
2	LDT 000 : LCR CODE 1234567	Up to 12 digits that, if matched by the user dialed digits, will access the DMT entry for the index assigned for the Day and Time zone below.	12 digits 0 ~ 9 and '*' as a wildcard	
3	LDT 000 : DAY ZONE 1 DMT INDEX(6DGT):	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 1. The appropriate index will be selected for the current Day and Time Zone. An entry of 6 digits (2 per Time Zone) must be entered.	00~99 3 DMT indices	
4	LDT 000 : DAY ZONE 2 DMT INDEX(6DGT):	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 2. The appropriate index will be selected for the current Day and Time Zone. An entry of 6 digits (2 per Time Zone) must be entered.	00~99 3 DMT indices	
5	LDT 000 : DAY ZONE 3 DMT INDEX(6DGT): . .	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 3. The appropriate index will be selected for the current Day and Time Zone. An entry of 6 digits (2 per Time Zone) must be entered.	00~99 3 DMT indices	
6	LDT 000 : CHK PASSWORD (1:ON / 0:OFF) : OFF	If enabled (ON), when the dialed digits match the LDT table digits, the system will send second dial tone to request the user input a valid Authorization code.	0: OFF 1: ON	

2.3.9.1.3 LCR Digit Modification Table -PGM Code 222-

Using the index determined from the analysis of the LCR Leading Digits Table **PGM CODE** 221, the dialed number is modified in accordance with the Digit Modification Table and sent over the CO/IP group assigned for the index.

Digits of the dialed number can be deleted based on the “Removal Position (RP)” and “Number of Remove digits (NR)” and a digit stream can be inserted in the resulting number. Counting from the first dialed digit, the Removal Position defines the location of the digit where removal begins and, NR defines the number of digits to remove. The “Add Digit Stream” is then inserted in the resulting number at the digit position assigned by the Add Position entry. The resulting number is then dialed over the CO/IP path assigned. If the assigned path is not available, the “Alternate DMT index” is used to determine the number and CO/IP path to be used.

Table 2.3.9.1.3-1 provides the displays, descriptions and entry ranges for the Digit Modification Table.

PROCEDURE:

DMT TABLE **ENTER DMT BIN (00-99)**	1. Press the **[PGM]** button and dial 222.
55 A: . . . . . . **RP01 NR00 AP01 CG01 AD ..**	Using the dial pad enter the desired Digit Modification Table index.
Refer to Table 2.3.9.1.3-1 **DISPLAY**	Press the Flex button (1~6) for the desired Table entry, refer to Table 2.3.9.1.3-1.
	Use the dial pad to enter the desired Digit Modification Table data, refer to Table 2.3.9.1.3-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.1.3-1 LCR DIGIT MODIFICATION (PGM 222)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**DMT 55 ADDED DGT** **. . . . . .**	This entry defines the digit stream to insert in the number after digits are removed. Digits 0~9, `*', `#', and special characters: **[HOLD]**: timed Pause **[DND]**: Dial tone detect **[FLASH]**: Billing station number	25 digits	
2	**DMT 55 REMOVAL POSITION** **(01-12) : 01**	This entry defines the position of the digit where removal is to begin, starting with the 1st dialed digit (01).	01~12	
3	**DMT 55 NUM OF REMOVE** **DIGITS (01-12) : 00**	This entry defines the number of digits to remove starting at the “Removal Position”.	01~12	
4	**DMT 55 ADD POSITION** **(01-13) : 01**	This entry defines the position in the number (after digits are removed) where the Add Digits are inserted.	01~13	
5	**DMT 55 CO/IP GROUP** **(01-72) : 01**	This entry defines the CO/IP Group that the system will attempt to use for the call.	01~20 or 01~72	
6	**DMT 55 ALT INDEX** **(00-99) : . .**	This entry defines an Alternate Digit Modification Table Index to use if no path is available in the assigned CO/IP Group.	00~99	
7	**DMT 55 NET NUM PLAN BIN** **(000-251) : . . .**	This entry defines the Net Number Plan Table bin that the system will attempt to use for the transit out call.	000~251	

2.3.9.1.4 LCR Table Initialize -PGM Code 223-

The LCR Table Initialize allows global values to be assigned to the various Digit Modification Table entries. In addition, the LCR Leading Digits and LCR Digit Modification Tables can be initialized, no entries state.

PROCEDURE:	
INITIALIZE LCR DB PRESS FLEX KEY (1-6)	1. Press the **[PGM]** button and dial 223.
Refer to Table 2.3.9.1.4-1 DISPLAY	Press the Flex button (1~6) for the desired Table entry, refer to Table 2.3.9.1.4-1.
	Use the dial pad to enter the desired LCR data, refer to Table 2.3.9.1.4-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.1.4-1 LCR TABLE INITIALIZE (PGM 223)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ENTER DMT INIT VAL(6) DAY ZONE 1: . . .	This entry permits the global setting of the Digit Modification Table Time Zone 1 to 3 indices for Day Zone 1.	00~99 3 DMT indices	
2	ENTER DMT INIT VAL(6) DAY ZONE 2: . . .	This entry permits the global setting of the Digit Modification Table Time Zone 1 to 3 indices for Day Zone 2.	00~99 3 DMT indices	
3	ENTER DMT INIT VAL(6) DAY ZONE 3: . . .	This entry permits the global setting of the Digit Modification Table Time Zone 1 to 3 indices for Day Zone 3.	00~99 3 DMT indices	
4	ENTER CO GRP INIT VAL . .	This entry permits the global setting of the CO/IP Group to be used for LCR calls.	01~20 or 00~72	
5	ENTER ALT INDEX INIT VA . .	This entry permits the global setting of the Digit Modification Alternate Index.	00~99	
6	INITIALIZE ALL LCR ?	Pressing **[SAVE]** will return the LCR LDT and DMT tables to the default (no entries) setting.		

2.3.9.2 Toll Tables -PGM Code 224-

There are five Toll restriction Tables and each has a pair of Table entries. Each pair consists of an Allow and a Deny entry. Allow and Deny entries for Table `A' apply to Station and DISA Class of Service 2, 4 and 11. Allow and Deny entries for Table `B' apply to Station and DISA Class of Service 3, 4 and 11. Allow and Deny entries for Table `C' apply to Station and DISA Class of Service 5 and 6. Allow and Deny entries for Table `D' apply to Station and DISA Class of Service 8, 10 and 11. Allow and Deny entries for Table `E' apply to Station and DISA Class of Service 9/ 10 and 11.

For each Table, there can be up to 50 separate Allow and Deny entries (total of 100) of up to 20 digits. Entries in the Tables can be any digit (0-9), "#" as a wild card (don't care) digit, or "*" as an end of entry digit.

Based on Table entries, stations or DISA users are allowed or denied dialing specified numbers. The following rules apply to establishing restrictions based on the Table entries:

If the appropriate Allow/Deny Table pair has no entries and COS is 2 to 4, or 8 to 9, no restrictions are applied. If the COS is 5 or 6, no Long Distance dialing is allowed.

If entries are only made in the Allow Table, only those numbers entered can be dialed, all other dialed numbers will be restricted.

If entries are only made in the Deny Table, only those numbers entered will be restricted and all other numbers can be dialed.

When there are entries in both the Allow and Deny Table pair, if the number is in the Deny Table, the number will be restricted otherwise the number can be dialed without restriction.

PROCEDURE:	
TOLL EXCEPTION TABLES **PRESS FLEX_KEY (1-10)**	1. Press the **[PGM]** button and dial 224.
ALLOW TABLE A **ENTER BIN NO (01-50)**	Press Flex button 1~10: Button 1: Allow Table A Button 2: Deny Table A Button 3: Allow Table B Button 4: Deny Table B Button 5: Allow Table C Button 6: Deny Table C Button 7: Allow Table D Button 8: Deny Table D Button 9: Allow Table E Button 10: Deny Table E
	Use the dial-pad to select a bin number (01~50).
	Use the dial-pad to enter the dialed number desired (up to 20 digits). Use "#" as a wild card to represent any digit and, at the end of an entry, dial "*" to end the entry. To delete a Toll Table entry, press the **[SPEED]** button.
	Press the **[SAVE]** button to store the data entry.

2.3.9.3 Emergency Code Table -PGM Code 226-

The Emergency Code Table is used to identify emergency numbers which, when dialed, will override all COS dialing restrictions. An Emergency Code number may be up to fifteen (15) digits in length.

PROCEDURE:	
EMERGENCY SVC CALL **ENTER BIN NO (01 - 10)**	1. Press the **[PGM]** button and dial 226.
EMERGENCY SVC CALL **BIN 01: . . . . . .**	Use the dial-pad for the desired Emergency code entry, 01 ~ 10.
	Use the dial-pad to enter the Emergency code number. After entering the number dial "*", the number is displayed with an "E" indicating END of entry.
	Press the **[SAVE]** button to store the data entry.

2.3.9.4 Authorization Codes Table -PGM Code 227-

Authorization codes are employed to control access to the system resources and facilities. Walking COS, CO/IP Group access, DISA callers, and certain Call Forward types may require input of a valid Authorization code. Codes up to 12 digits may be entered into the system database. The station has an associated Station Authorization bin, which can be assigned by the user from the user's telephone. The System Authorization codes are stored in System bins and are entered or deleted only through Admin. The number of System Authorization codes available is 474 when using the iPECS-Micro (001-474), 450 when using the iPECS-50 (001 to 450), 430 when using MFIM100, (001~430), 700 when using MFIM300 (001 to 700) ,1400 when using MFIM600 (001~1400) and 3400 when using MFIM1200.

PROCEDURE:	
AUTHORIZATION CODE **F1:STA_AUTH F2:SYS_AUTH**	1. Press the **[PGM]** button and dial 227.
Refer to Table 2.3.9.4-1 **DISPLAY**	Press Flex button 1 or 2 to select the desired entry: Flex button 1 - Station authorization code Flex button 2 - System Authorization code
	For Flex button 1 enter a station range, enter the same station number twice for a single station entry. For Flex button 2, enter the 'bin' number (001~474 for iPECS-Micro, 001~450 for iPECS-50, 001~430 for MFIM100, 001~700 for MFIM300, and 0001~1400 for MFIM600, and 0001~3400 for MFIM1200). Then press Flex button 1 to set the password and Flex button 2 to set the COS (Day, Night and Timed).
	Use the dial-pad to enter the Authorization code or COS.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.4-1 AUTHORIZATION CODES (PGM 227)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1-1	AUTHORIZATION CODE ENTER STA RANGE	Authorization code for each station can be assigned up to 12 digits in length.		
1-2	AUTHORIZATION CODE ENTER BIN NO(001-430)	Authorization codes for system-wide use can be assigned up to 12 digits in length.	001~430, 001~700 Or 0001~1400	
2-1	SYSTEM AUTHORIZATION F1:SET_PWD F2:SET_COS	Selects attribute, code or Class of Service.		
2-1	SYSTEM AUTHORIZATION 001: 12345678901	A password of up to 12 digits is defined.		
2-2	SET COS : F1:DAY_F2:NIGHT_F3:TIME	Establishes the COS associated with the System Authorization code during Day, Night and Timed Service modes.	1 ~ 11	7

2.3.9.5 Customer Call Routing/VSF AA Table -PGM Code 228-

The system incorporates IVR (Integrated Voice Response) capabilities called CCR (Customer Call Routing). After or during a VSF AA Announcement, a caller may dial a digit to select a destination or route for the call. The CCR/VSF-AA Routing Audio Text Table defines the destination associated with digits dialed by the caller in response to the VSF AA Announcement (01-70). Up to 70 single-level Audio Text menus may be assigned or, multi-level menu structures (maximum 70 levels) can be established using one menu as a destination for the previous level.

PROCEDURE:	
CUSTOM CALL ROUTING SELECT CCR TABLE (01-70)	1. Press the **[PGM]** button and dial 228.
CCR TABLE 01 PRESS FLEX KEY (1-10)	Use the dial-pad to select a CCR Table index, 01~70. The index number is the same as the VSF AA Announcement number.
CCR TABLE 01 INPUT 1 : NOT ASSIGNED	Press a Flex button (1~13, 10=0) to assign a route for the associated CCR dialed digit. (11~13 is assigned to busy, no answer, error destinations)
CCR TABLE 01 INPUT 1 : ...	Use the dial-pad to enter the Type and Value for Destination, refer to Table 2.3.9.5-1 for Type and value codes.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.5-1 CCR DESTINATIONS (PGM 228)

DESTINATION		VALUE RANGE					
TYPE	DESCRIPTION	iPECS-Micro	iPECS-50	MFIM100	MFIM300	MFIM600	MFIM1200
1	Route to a Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
2	Route to a Station Group	620~631	620~659	620~659	620~667	620~667	401~500

DESTINATION		VALUE RANGE					
TYPE	DESCRIPTION	iPECS-Micro	iPECS-50	MFIM100	MFIM300	MFIM600	MFIM1200
3	Route with System Speed Dial	200~999	200~999	200~999	2000~4999	2000~7999	**20000~31999**
4	Route as PBX Transfer with System Speed Dial (Flash then dial speed dial digits)	200~999	200~999	200~999	2000~4999	2000~7999	**20000~31999**
5	Route to VSF Announcement	01~70	01~70	01~70	01~70	01~70	01~70
6	Route to VSF Announcement and disconnect	01~70	01~70	01~70	01~70	01~70	01~70
7	Route to Networked Station.	~(100~125)	~(100~149)	~(100~169)	~(100~399)	~(1000~1599)	~(1000~2199)
8	Conference Room	1-9	1-9	1-9	1-9	1-9	1-9
9	Internal Page	01-10	01-10	01-10	01-35	01-35	01-100
10	External page	n/a	01-02	01-02	01-02	01-02	01-02
11	All Call Page	01(internal) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)
12	Route to voice mail(station group/station number)	620~631/ 100~125	620~659/ 100~149	620~659/ 100~169	620~667/ 100~399	620~667/ 1000~1599	401~500/ 1000~2199

2.3.9.6 Executive/Secretary Table -PGM Code 229-

Stations can be paired as Executive/Secretary pairs so that when the Executive enters DND, intercom and transferred calls are automatically routed to the Secretary. Up to 10 Executive/Secretary pairs can be defined for the iPECS with an iPECS-Micro, iPECS-50 or MFIM100 and up to 36 for the iPECS with other MFIM models except 100 for MFIM1200. An Executive may have only one Secretary however, a Secretary can be assigned to multiple Executives. A Secretary of one pair may be the Executive of another however, assignments that form a loop-back are not allowed. In addition, when active, the Secretary can be assigned to receive the Executive's voice messages, refer to Station Attributes III **PGM CODE** 113 button 10.

PROCEDURE:

EXEC/SEC PAIRS **ENTER BIN NO (01-10)**	1. Press the **[PGM]** button and dial 229.
EXEC/SEC PAIR 01 **PRESS FLEX KEY(1-5)**	Use the dial-pad to enter the desired Executive/Secretary pair bin. (01~10 for the MFIM100 & iPECS-50 & iPECS-Micro, 01~36 for other MFIMs)
Refer to Table 2.3.9.6-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.9.6-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.6-1 EXECUTIVE/SECRETARY PAIRS (PGM 229)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	EXEC/SEC PAIR 01 PAIR 1 : 101/102	Assigns Executive/Secretary pair stations.		
2	CO CALL TO SEC (1:ON/0:OFF) : OFF	If desired, all incoming CO calls to the Exec. station are routed to the Secretary's station regardless of the Executive's status.	0: OFF 1: ON	OFF
3	CALL EXEC IF SEC DND (1:ON/0:OFF) : OFF	If the Secretary is in DND, Executive calls can be routed back to the Executive.	0: OFF 1: ON	OFF
4	EXEC GRADE (01-12): 12	Higher grade Executives can override the Executive/Secretary Forward feature to call a lower grade Executive (Korea only). Highest grade: 01, Lowest grade: 12.	01~12	12
5	ICM CALL TO SEC (1:ON/0:OFF) : OFF	If this option is ON, all internal calls to the Exec. Station(except for calls from higher or same grade executive) are routed to the Secretary's station regardless of the Executive's status. - Default value Korea, India, Israel, Turkey, Thailnad : ON Otherwise : OFF	0: OFF 1: ON	

2.3.9.7 Flexible DID Conversion Table -PGM Code 231-

When the received DID digits are converted as in **PGM CODE** 230, the resulting three-digit(or four-digit for MFIM1200) number may be used as an index to the Flexible DID Conversion Table. The Flexible DID Table index is used when the DID Line is assigned a Conversion type 2; refer to **PGM CODE** 145 Flex button 2. Based on the index from **PGM CODE** 230 and the system mode (Day, Night or Timed) a destination for the DID call is determined. The destination can be a VSF AA Announcement with CCR assigned allowing further routing of the call or can route using the ICLID routing tables.

PROCEDURE:	
FLEX DID CONV TABLE **F1:INPUT F2:INIT F3:DEL**	1. Press the **[PGM]** button and dial 231.
FLEX DID CONV TBL INPUT **ENTER BIN NO (000-999)**	Select Flex button 1~3: Flex button 1: Input new data Flex button 2: Initialize Table Flex button 3: Delete entry
TABLE BIN 001 **PRESS FLEX KEY (1-7)**	Use the dial pad to enter a Table index (000~999)
Refer to Table 2.3.9.7-1 **DISPLAY**	Press Flex button 1~7 to select the desired destination, refer to Table 2.3.9.7-1.
	Use the dial pad to enter the desired type and value for the destination, refer to Table 2.3.9.7-2.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.7-1 FLEXIBLE DID CONVERSION (PGM 231)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	TABLE 001 NAME …….....	Name associated with the destination.	11 characters	
2	TABLE 001 DAY DEST NONE (1-8)	Destination setting for Day Ring mode.	Type & Value	
3	TABLE 001 NIGHT DEST NONE (1-8)	Destination setting for Night Ring mode.	Type & Value	
4	TABLE 001 TIMED_R DEST NONE (1-8)	Destination setting for Timed Ring mode	Type & Value	
5	TABLE 001 REROUTE DEST NONE (1-8)	Destination setting for Reroute Dest mode	Type & Value	
6	TABLE 001 USE ICLID (1:ON/o:OFF) : OFF	A DID Conversion Table index can be assigned to employ ICLID routing, section 2.3.8.4.	0: OFF 1: ON	OFF
7	TABLE 001 TENAN TBL NO (00-16),16:N/A) :	A DID Conversion Table Index can be assigned to employ an Auto ring mode table, section 2.3.9.9.	Type & Value	N/A

Table 2.3.9.7-2 FLEXIBLE DID DESTINATION (PGM 231)

TYPE	DESCRIPTION	DESTINATION					
		iPECS		MFIM			
		Micro	50	100	300	600	1200
1	Route to a Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
2	Route to a Station Group	620~631	620~659	620~659	620~667	620~667	401~500
3	Route with System Speed Dial	200~999	200~999	200~999	2000~4999	2000~7999	20000~31999
4	Route as PBX Transfer with System Speed Dial (Flash then dial speed dial digits)	200~999	200~999	200~999	2000~4999	2000~7999	20000~31999
5	Route to VSF AA Announcement	01~70	01~70	01~70	01~70	01~70	01~20
6	Route to VSF AA Announcement and disconnect	01~70	01~70	01~70	01~70	01~70	01~20
7	Route to a Networking Station	~(100~125)	~(100~149)	~(100~169)	~(100~399)	~(1000~1599)	~(1000~2199)
8	Conference Room	1-9	1-9	1-9	1-9	1-9	1-9
9	Internal Page	01-10	01-10	01-10	01-35	01-35	01-100
10	External page	n/a	01-02	01-02	01-02	01-02	01-02
11	All Call Page	01(internal) 03(all)	01(internal) 02(external) 03 (all)	01(internal) 02(external) 03 (all)	01(internal) 02 (external) 03 (all)	01(internal) 02 (external) 03 (all)	01(internal) 02 (external) 03 (all)
12	Voice Mail Box Group	620~631	620~659	620~659	620~667	620~667	401~500
	Voice Mail Box Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
13	ICLID Ring Assignment Table	001~250	001-250	001-250	001-250	001-250	001-250

2.3.9.8 System Speed Zone Table -PGM Code 232-

The System Speed Dial numbers can be grouped into zones. Only stations allowed can access numbers within a zone, allowing System Speed Dials to be partitioned. Each zone can be assigned to apply the appropriate Station and CO Line COS for the Speed Dial number prior to dialing. The MFIM 600 has 20 zones and MFIM1200 has 50 zones, other models have 10 zones.

PROCEDURE:	
SYSTEM SPEED ZONE PGM **ENTER ZONE NO (01-10)**	1. Press the **[PGM]** button and dial 232.
SYSTEM SPEED ZONE 1 **F1:ZN F2:STA F3:TCHK F4:AK**	Using the dial-pad, enter the zone number, 01~10.
Refer to Table 2.3.9.8-1 **DISPLAY**	Press Flex button 1~3 for the desired zone characteristic, refer to Table 2.3.9.8-1.
	Using the dial pad, enter the desired data as indicated in Table 2.3.9.8-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.8-1 SPEED ZONE (PGM 232)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	**ENTER NEW ZONE RANGE** **ZONE 1 : xxx- xxx**	Speed Dial Bin range for zone.	400~999 for iPECS-Micro & iPECS-50 & MFIM100 2200~4999 for MFIM300 2200~7999 for MFIM600 20200~31999 for MFIM1200	
2	**ENTER STA RANGE** **ZONE 1 : xxx – xxx**	Station range for zone.	100~125 for IPECS-Micro 100~149 for IPECS-50 100~169 for MFIM100 100~399 for MFIM300 1000~1599 for MFIM600 1000~2199 for MFIM1200	
3	**SPEED ZONE 1 TOLL CHK** **(1:ON/0:OFF) : ON**	Assignment to apply toll restriction.	0: OFF 1: ON	ON
4	**SPEED ZONE 1 AUTH CHK** **(1:ON/0:OFF) : ON**	Speed Dial Authorization Check for zone.	0: OFF 1: ON	ON

2.3.9.9 Auto Ring Mode -PGM Code 233-

The system can automatically select the Ring and COS Mode based on time of day and day of week. Three Ring and COS modes are supported, Day, Night, and Timed modes. The ring assignments are as defined in CO/IP Ring Assignment -PGM Codes 144-. The COS assignments are as defined in and DISA COS -PGM Code 166-.

The start times for Day, Night and start and end times for Timed modes are entered for each day of week. When the Timed mode ends, the system reverts to the appropriate mode based on the Day/Night settings and the time-of-day. The Attendant can override the automatic selection and select the desired system Mode (Day, Night, and Timed). A separate Auto Ring Table can be established for each ICM Tenancy Group -PGM Code 125- (indices 1 ~ 15) and for the system (index 00).

PROCEDURE:	
WEEKLY TIME TABLE **DIAL DIGIT (00-15)**	1. Press the **[PGM]** button and dial 233.
WEEKLY TIME TBL 0 **PRESS FLEX KEY (1-7)**	Use the dial-pad to enter a tenant Table index or 00 for the system (00~15).
Refer to Table 2.3.9.9-1 **DISPLAY**	Press the Flex button 1~7 for the desired day of week (Monday~Sunday) followed by Flex button 1~3 for the desired ring mode (Day, Night, Timed), refer to Table 2.3.9.9-1.
	Use the dial-pad to enter a time (military time), 0000 to 2359.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.9-1 AUTO RING MODE ASSIGNMENT (PGM 233)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	MON DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Monday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
2	TUE DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Tuesday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
3	WED DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Wednesday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
4	THU DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Thursday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
5	FRI DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Friday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
6	SAT DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Saturday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..
7	SUN DAY-09:00 NITE-18:00 TDS-..:.. TDE-..:..	Sunday DAY/NIGHT/TIMED ring mode start times and TIMED mode end times.	0000~2359	DAY: 9:00 NITE: 18:00 TDS: ..:.. TDE: ..:..

2.3.9.10 Voice Mail Dialing Table -PGM Code 234-

When an external Voice Mail system is used that employs in-band signaling, a digit sequence must be defined for the system to signal various call characteristics to the Voice Mail system. The voice mail uses the sequences to determine appropriate announcements or further call routing. The Table permits the definition of digits as either a prefix or suffix to other digits (station number for mailbox identification). Sequences are defined for such call characteristics as Put Mail, Get Mail, No Answer call, etc.

PROCEDURE:	
VOICE MAIL DIALING TBL **DIAL DIGIT (1-9)**	1. Press the **[PGM]** button and dial 234.
Refer to Table 2.3.9.10-1 **DISPLAY**	Use the dial-pad to enter a table entry(1~9), refer to Table 2.3.9.10-1
	Use the dial-pad to select Prefix or Suffix and the digit sequence, use the **[MSG/CALLBK]** button to enter a Pause, refer to Table 2.3.9.10-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.10-1 VOICE MAIL DIAL (PGM 234)

Digit	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	VOICE MAIL 1 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to receive call to record a message. Put Mail	0: Prefix 1: Suffix Any digits	P#
2	VOICE MAIL 2 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to playback recorded messages. Get Mail	0: Prefix 1: Suffix Any digits	P##
3	VOICE MAIL 3 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to receive a call while the user is busy. Busy Mail	0: Prefix 1: Suffix Any digits	P#*3P
4	VOICE MAIL 4 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to receive a call while the user is in DND. DND Mail	0: Prefix 1: Suffix Any digits	P#*4P
5	VOICE MAIL 5 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to receive a call when the user did not answer. No Answer Mail	0: Prefix 1: Suffix Any digits	P#*5P
6	VOICE MAIL 6 PREFIX OR SUFFIX (1-2)	Code sent when the voice mail is to receive a call when a dialing error exists. Error Mail	0: Prefix 1: Suffix Any digits	P#*6P
7	VOICE MAIL 7 PREFIX OR SUFFIX (1-2)		0: Prefix 1: Suffix Any digits	
8	VOICE MAIL 8 PREFIX OR SUFFIX (1-2)		0: Prefix 1: Suffix Any digits	
9	VOICE MAIL 9 DISCONNECT [DIAL DGT_1]	Code sent when the voice mail is to disconnect a call. Disconnect Mail	0: Prefix 1: Suffix Any digits	*****

2.3.9.11 Registration & Fractional Module Table – PGM Code 235–

When multiple iPECS systems are located on the same LAN, it may be desirable to register add-on devices employing the Registration Table. By entering the devices MAC address, the system will allow the device to register regardless of the system Registration switch position, MFIM 3rd DIP-switch. In addition, the number of channels (ports) available to the device can be limited to support functions such as Fractional T1 Lines where only a portion of the channels are needed.

PROCEDURE:	
REGISTRATION TBL **ENTER TBL NO(1-5)**	1. Press the **[PGM]** button and dial 235.
REG TBL 1: NO MAC INFO **NO OF PORT : 1**	Use the dial-pad to select a Table entry (1~5).
Refer to Table 2.3.9.11-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.9.11-1.
	Use the dial-pad to enter the desired data, refer to Table 2.3.9.11-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.11-1 MAC REGISTRATION (PGM 235)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`TBL 1: SET MAC ADDR` `MAC 1: 00405A127F20`	Enter the MAC address of the device to register.		
2	`TBL 1: SET MAX PORT` `NO OF PORT : 10`	Enter maximum number of ports (channels) for the device. For a 00 entry the system will accept physical port number.	00-99	00
3	`TBL 1: DEV TYPE` `DEV TYPE : ....`	Enter device type when register internal gateway (VSF/MISC/VOIP/SLTM/LGCM/BRIM) To register external gateway, it should be N/A as default.	0-6 0: N/A 1: VSF 2: MISC 3: VOIP 4: SLTM 5: LGCM 6: BRIM	0 (N/A)

2.3.9.12 Mobile Extension Table – PGM Code 236–

A mobile phone can be used in conjunction with an iPECS Phone. The Mobile phone can access system resources available to the user's wired phone and will receive ring for incoming iPECS calls. The user may be allowed to enable the Mobile extension and define the mobile number. The system can be defined to employ a specific CO/IP Line Group to place calls to the Mobile phone.

The Mobile Extension Table also defines Notification of new VMIM/VSF messages. When a new message is received for a user in the VMIM/VSF, the system will call the assigned 'Tel Number' notifying the user of the new message.

PROCEDURE:	
MOBILE EXTENSION TABLE **ENTER STA NUMBER**	1. Press the **[PGM]** button and dial 236.
100 : MOBIL EXT ATTR **PRESS FLEX KEY (1-9)**	Use the dial-pad to enter the desired station number.
Refer to Table 2.3.9.12-1 **DISPLAY**	Press the Flex button for the desired item, refer to Table 2.3.9.12-1
	Use the dial-pad to enter the required data.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.12-1 MOBILE EXTENSION (PGM 236)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	100 : PGM AUTHORITY (1:ON/0:OFF) : OFF	The user may be allowed to activate the mobile extension feature.	0: OFF 1: ON	OFF
2	100 : ACCESS AUTHORITY (1:ON/0:OFF) : OFF	The user can be allowed to register a Mobile phone number.	0: OFF 1: ON	OFF
3	100 : ACCESS CO GRP CO GRP : 01	CO group used to call (ring) the mobile extension.	00~72 or 00~24	01
4	100 : TEL NUMBER ……	Telephone number of the Mobile extension.		Not assigned
5	TABLE 001 CLI ……	When the mobile Telephone number and CLI do not match, the CLI entered here is used to authorize incoming calls from the mobile.		Not assigned
6	100 : HUNT CALL ENABLE (1:ON/0:OFF) : OFF	When the paired station is a member of a hunt group (ACD, Circular or Terminal), group calls can be sent to the active mobile extension.	0: OFF 1: ON	OFF
7	100 : VSF/VMIM NOTIFY (1:ON/0:OFF) : OFF	Enables outbound notification by the system when the VMIM/VSF has unheard messages.	0: OFF 1: ON	OFF
6	100 : NOTIFY RETRY CNT (1~9) : 3	Defines the number of attempts the system will make to complete a notification when receiving busy/no-answer.	1~9	3
6	100 : NOTIFY RETRY INT (1~3) : 3	Defines the time between notification attempts. If a notification fails, the system will retry after the timer expires.	1~3 (Minutes)	3

2.3.9.13 Hot Desk Attributes – PGM Code 250–

A Hot Desk station allows a user to login for access to the system features and resources. Once logged in, the user is provided access to system features and resources employing the database for the user's assigned station.

User station numbers are assigned automatically by the system. The system assigns station numbers to each agent starting at the highest station number (125 for iPECS-Micro; 149 for iPECS-50; 169 for MFIM100 and 399 for the MFIM300; 1599 for the MFIM600; 2199 for the MFIM1200) and decrementing, for each agent. For example, if the number of Hot Desk users under button 1 is five, then station numbers 169, 168, 167, 166, and 165 for the MFIM100 are assigned as Hot Desk users.

PROCEDURE:	
HOTDESK ATTRIBUTE **PRESS FLEX KEY (1-3)**	1. Press the **[PGM]** button and dial 250.
Refer to Table 2.3.9.13-1 **DISPLAY**	Press the desired Flex button, refer to Table 2.3.9.13-1
	Use the dial-pad to enter the appropriate data
	Press the **[SAVE]** button to store the data entry.

Table 2.3.9.13-1 HOT DESK ATTRIBUTES (PGM 250)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	NO OF AGENT (000-300) 010	Assign number of hot desk agents	00-26 for iPECS-Micro 000-050 for IPECS-50 000-070 for MFIM100 000-300 for MFIM300 000-600 for MFIM600 000-1200 for MFIM1200	000
2	VIEW AGENT RANGE 390(P291) – 399(P300)	View the assigned station number for agents.		
3	AUTO LOGOUT TMR(hour) (00-24) : 00	A Hot desk station will return to inactive if the logged in user takes no action for the Auto Logout timer.	0~24 Hrs.	00

2.3.10 NETWORKING DATA – PGM CODES 320 to 324–

2.3.10.1 Network Basic Attribute –PGM Code 320–

PROCEDURE	
NET BASIC ATTRIBUTE **PRESS FLEX KEY (1-8)**	1. Press the **[PGM]** button and dial 320.
Refer to Table 2.3.10.1-1 **DISPLAY**	Press the Flex button 1~8 for the desired setting, refer to Table 2.3.10.1-1
	Use the dial-pad to enter the required data.
	Press the **[SAVE]** button to store the new data.

Table 2.3.10.1-1 NETWORK BASIC ATTRIBUTE (PGM 320)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	NET ENABLE (1:ON/:OFF) :OFF	Enable Networking function	0: OFF 1: ON	OFF
2	NET RETRY COUNT (00-99) :00	Not used	00-99	00
3	NET CNIP ENABLE (1:ON/:OFF) :ON	The name of calling station is sent to the called system between iPECS systems. CNIP is displayed at called party stations display based on the programming	0: OFF 1: ON	ON
4	NET CONP ENABLE (1:ON/:OFF) :OFF	Reserved for future usage	0: OFF 1: ON	OFF
5	NET SIGNAL METHOD (1:FAC/:UUS) :FAC	Select the information element type for QSIG supplementary service message.	0: UUS 1: FAC	FAC
6	NET CAS ENABLE (1:ON/:OFF) :OFF	Not used	0: OFF 1: ON	OFF
7	NET VPN ENABLE (1:ON/:OFF) :OFF	Not used	0: OFF 1: ON	OFF
8	NET CC RETAIN MODE (1:ON/:OFF) :OFF	Not used	0: OFF 1: ON	OFF

2.3.10.2 Network Supplementary Attribute -PGM Code 321-

PROCEDURE:	
NET SUPPLEMENTARY ATTR PRESS FLEX KEY (1-8)	1. Press the **[PGM]** button and dial 321.
Refer to Table 2.3.10.2-1 DISPLAY	Press Flex button 1~7 for the desired setting, refer to Table 2.3.10.2-1.
	Use the dial-pad to enter the required data, refer to Table 2.3.10.2-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.10.2-1 NETWORK SUPPLEMENTARY ATTRIBUTE (PGM 321)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	NET TRANSFER MODE (1:RERT/0:JOIN) :REROUT	Select type for Transfer and Call forward – Rerouting or Join	1:RERT 0:JOIN	REROUT
2	TCP PORT FOR BLF (9500-9999) :9500	TCP port for sending BLF message to BLF Manager	0000-9999	9500
3	UDP PORT FOR BLF (9500-9999) :9501	UDP port for sending BLF message to BLF Manager	0000-9999	9501
4	BLF MANAGER IP 0 .0 .0 .0	IP Address of BLF Server used only when iPECS is configured with LDK systems for Voice Networking		0.0.0.0
5	DURATION OF BLF STS (01-99) 100 mm sec : 10	Duration of BLF status message sending to BLF Server.	01-99 (msec)	10
6	MULTI CAST IP 0 .0 .0 .0	IP address of Multicast for BLF service		0.0.0.0
7	NET TRANS FAULT RCL TMR (001-300)sec : 010	Network transfer fault recall timer to be used when no responses from other systems.	001-300 (seconds)	10
8	VOIP CALL REROUTE CO GR (00-72) : 00	SIP outgoing call is rerouted via alternative backup CO line when received call fail reason or there is no answer during 3 seconds	00-22 or 00-72	00
9	BLF SERVICE USAGE (1:ON/:OFF) :OFF	Enable/disable for BLF manager function.	0: OFF 1: ON	OFF

2.3.10.3 Network CO LINE Attribute -PGM Code 322-

PROCEDURE:	
NET COL ATTRIBUTE ENTER CO RANGE	1. Press the **[PGM]** button and dial 322.
01-01 NET COL PGM PRESS FLEX KEY (1-2)	Use the dial-pad to enter the CO Range.
Refer to Table 2.3.10.3-1 DISPLAY	Press the Flex button 1~4 for the desired setting, refer to Table 2.3.10.3-1
	Use the dial-pad to enter the required data, refer to Table 2.3.10.3-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.10.3-1 NETWORK BASIC ATTRIBUTE (PGM 322)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	01-01 NET CO GRP (00 – 24) : 00	Networking CO group programming for Networking call.	00-24	00
2	01-01 NET CO LINE TYPE (0:PSTN/1:NET) : PSTN	Select network CO Line Type	0: PSTN 1: QSIG	PSTN

2.3.10.4 NET Numbering Plan Table -PGM Code 324-

PROCEDURE:	
NET NUM PLAN TABLE ENTER BIN NO (00-149)	1. Press the **[PGM]** button and dial 324.
00 NET NUM PLAN TBL PRESS FLEX KEY (1 – 11)	Use the dial-pad to enter the 2-digit Table index (bin) number, 01 ~ 149.
Refer to Table 2.3.10.4-1 DISPLAY	Press the Flex button, 1~11 for the desired setting, refer to Table 2.3.10.4-1.
	Use the dial-pad to enter the required data, refer to Table 2.3.10.4-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.10.4-1 NETWORK NUMBERING PLAN (PGM 324)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	00 SYSTEM USAGE (0:NET/1:PSTN) : NET	Select system usage	0:NET 1:PSTN	NET
2	00 NUM PLAN CODE	'*' means any digits can be inserted between 0 ~ 9. The digits followed by '#' are an internal station number.	16 digits	
3	00 NUM PLAN CO GRP (00 - 24) : . .	'00' means an internal net station number	00-24	. .
4	00 CPN INFORMATION PRESS FLEX (1-4)	Flex 1: ISDN CPN INFORMATION Flex 2: (Flex btn 1- 4) 1: 00 CPN INFORMATION 01 2: 00 CPN INFORMATION 02 3: 00 CPN INFORMATION 03 4: 00 CPN INFORMATION 04	16 digits	
5	00 ALT SPD BIN (0200-0999) :	Alternative Dial Number (System SPD Bin) when the networking path has a fatal problem.	0200-0999 or 2000~4999	
6	DEST MFIM IP ADDR 0. 0. 0. 0	IP Address of destination MFIM system only when iPECS systems are configured for Voice Networking.		0.0.0.0
7	DEST MFIM PORT NO (0000-9999) :	Port Number of destination system for Networking.	0000-9999	5588
8	00 DIGIT REPEAT (0:NO/1:YES): NO	When the number plan code (Flex 2) is for PSTN call or transit-call, this number code can be enveloped in SETUP message or not whether if this field is set or not.	0: NO 1:YES	NO
9	00 NET PSTN ENBLOCK (0:NO/1:YES): NO	Choose "Transit-out Public Line" to Enblock or Over-lap.	0: NO 1:YES	NO
10	00 CO ATD CODE CLI (1:ON/0:OFF) : OFF	Determine whether if Centralized ATD CLI is sent or not when slave system makes transit call.	0: OFF 1: ON	OFF
11	00 FIREWALL ROUTING (1:ON/0:OFF) : OFF	Select IP address (Firewall IP address or Non-firewall IP address). If the destination system(VOIM) is in same VPN then Non-firewall IP address should be sent. Otherwise the firewall IP address should be sent. ON : Send firewall IP address OFF : Send Non-firewall(Internal) IP address	0: OFF 1: ON	ON
12	00 AUTHO CODE COS USE (0:NO/1:YES): NO	When there's a transit out call request from slave system user by seizing CO line, apply COS according to the authorization code.	0: NO 1:YES	NO
13	00 SMDR DIAL HIDDEN (0:NO/1:YES): NO	Determine to display dialed digit of transit out call or not at the slave system ; it can contain authorization code.	0: NO 1:YES	NO

2.3.10.5 Network Feature Code Table -PGM Code 325-

PROCEDURE:	
NET FEATURE CODE TBL ENTER BIN NO(01-20)	1. Press the **[PGM]** button and dial 325.
01 NET FEATURE CODE TBL PRESS FLEX KEY (1-2)	Use the dial-pad to enter the bin no.
Refer to Table 2.3.10.3-1 DISPLAY	Press the Flex button 1~2 for the desired setting, refer to Table 2.3.10.3-1.
	Use the dial-pad to enter the required data, refer to Table 2.3.10.3-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.10.5-1 NETWORK FEATURE CODE TABLE (PGM 325)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	01 NET FEATURE CODE	Networking Feature Code programming for Networking paging call.	16 digits	
2	01 NET PAGE DEST NONE (1-3)	Select network page type(1-3) and network page zone. INT PAGE ZONE : MFIM100(1-10), MFIM300/MFIM600/MFIM1200(1-20) EXT PAGE ZONE : (1-2) ALL CALL PAGE ZONE : INT(1), EXT(2), ALL(3)	1 : INT PAGE 2 : EXT PAGE 3 : ALL CALL PAGE	N/A

2.3.11 TNET (Centralized Networking) – PGM CODES 330 – 336-

In a Centralized Control TNET (Transparent Networking), remote devices may be registered to a Central MFIM (CM) and to a Local MFIM (LM). In this way, the CM maintains control of the remote device. Should the WAN connection between an LM and CM fail (2 second polling error), the LM will initiate operational control of the locally registered devices. Calls between the systems (CM & LM) can automatically shift to PSTN Modules registered with the LM for Fail-over operation. The configuration and characteristics of LMs and CM are configurable as is Fail-over operation.

2.3.11.1 TNET Basic Attributes – PGM Code 330

Each MFIM in a Central Control network environment must be enabled for TNET operation in order to function as part of the network.

PROCEDURE:	
TNET BASIC ATTRIBUTES PRESS FLEX KEY (1 – 1)	1. Press the **[PGM]** button and dial 330.
TNET ENABLE (1:ON/0:OFF) : OFF	Press Flex button 1.
	Use the dial-pad to enable or disable TNET, Central Control networking.
	Press the **[SAVE]** button to store the new data.

2.3.11.2 TNET CM Attributes – PGM Code 331

Each LM (Local MFIM), which is part of a Central Control Network, must be defined with the IP Address of the CM (Central MFIM) as well as the LM configuration data that will be sent to the CM at the time the LM registers with the CM. The port counts define the ports, which are allocated in the CM database for use by devices registered to the LM. The number of ports defined in the database of each LM must be equal or less than the ports defined in the CM for the LM, see PGM Code 332, in order to register properly.

PROCEDURE:	
TNET CM ATTRIBUTES **PRESS FLEX KEY (1 – 6)**	1. Press the **[PGM]** button and dial 331.
Refer to Table 2.3.11.2-1 **DISPLAY**	Press the Flex button, 1~6 for the desired setting, refer to Table 2.3.11.2-1.
	Use the dial-pad to enter the required data, refer to Table 2.3.11.2-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.11.2-1 TNET CM ATTRIBUTES (PGM 331)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	CM REGISTER REQ (1:ON/0:OFF) : ON	This field informs the LM to attempt registration with the CM. This field must be set to ON for proper registration.	0: OFF 1: ON	OFF
2	CM IP ADDRESS xxx.xxx.xxx.xxx	This field defines the IP address of the CM that will be used by the LM.	IPv4 address	
3	CM IPKTS PORT (0001 - 9999) :5588	In the TNET environment, the IP KTS protocol signaling UDP port is defined. At present this field is not used, do not change this port number.	0000-9999	5588
4	CM TOTAL PORT (000 – 999) : 011	This field defines the total number of ports the LM will request be allocated by the CM for devices attached to the LM. This value must be equal to or less than the port count in the CM for the LM devices.	000-999	000
5	POLLING COUNT (00 – 99) : 05	This field defines the maximum polling failures an LM considers a WAN fault.	00-99	05
6	POLLING INTERVAL (00 – 99) : 02	This field defines the interval time between LM to CM polling attempts.	00-99	02

2.3.11.3 TNET LM ATTRIBUTES – PGM Code 332

The CM (Central MFIM) must be programmed with the MAC and IP address of each LM (Local MFIM) in the Centralized Control network as well as the maximum configuration of each LM. Up to 2 Local MFIMs (LMs) for iPECS-Micro, Up to 50 Local MFIMs (LMs) for MFIM1200 and Up to 15 Local MFIMs (LMs) for other MFIMs may be defined and configurations entered. The port counts define the ports, which are allocated in the CM database for use by devices registered to the LM. The number of ports defined in the database of each LM, see PGM CODE 331, must be equal to or less than the ports defined in the CM for the LM, in order to register properly. VoIP channels are needed to support RTP Packet relay or codec translation between other devices. The CO port count must include any VoIP channels required.

PROCEDURE:	
TNET LM ATTRIBUTES **ENTER BIN NO(01-15)**	1. Press the **[PGM]** button and dial 332.
TNET LM(01) ATTRIBUTES **PRESS FLEX KEY (1- 4)**	Use the dial pad to enter the bin number associated with the LM, maximum 2 for iPECS-Micro, maximum 50 for MFIM1200 and maximum 15 for other MFIMs.
Refer to Table 2.3.11.3-1 **DISPLAY**	Press the Flex button, 1~4 for the desired setting, refer to Table 2.3.11.3-1.
	Use the dial-pad to enter the required data, refer to Table 2.3.11.3-1.
	Press the **[SAVE]** button to store the new data.

Table 2.3.11.3-1 TNET LM ATTRIBUTES (PGM 332)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	LM(01) MAC ADDRESS 0000000000000	This field defines the MAC address of the LM that will be part of the TNET environment and is used by the CM for authorization.	MAC address	
2	LM(01) IP ADDRESS xxx.xxx.xxx.xxx	This field displays the IP address of the LM.	IPv4 address	
3	LM(01) IPKTS PORT (0001 - 9999) :5588	In the TNET environment, the IP KTS protocol signaling UDP port is defined. At present this field is not used, do not change this port number.	0000-9999	5588
4	LM (01) TOTAL PORT (000 – 999) : 011	This field defines the total number of ports the LM will request be allocated by the CM for devices attached to the LM. This value must be equal to or more than the available port count in the LM.	000-999	000

2.3.11.4 FoPSTN Attributes – PGM Code 333

The Fail-over function allows the systems in a Centralized Control network (TNET) environment to complete calls from system to system over a PSTN (analog or digital) line should the WAN connection to the CM fail. A CO gateway Module must be registered to the LM for local control and access CO services. Users may call others in the normal manner and the call is routed over CO facilities to the remote CM. When calls are directed to a DID line at the receiving system, the system will select a line from the assigned CO Group and dial the Tel Number with the station number dialed as the trailing digits.

PROCEDURE:	
FoPSTN ATTRIBUTES **PRESS FLEX KEY (1–3)**	1. Press the **[PGM]** button and dial 333.
Refer to Table 2.3.11.4-1 **DISPLAY**	2. Press the Flex button 1~3 for the desired setting, refer to Table 2.3.11.4-1.
	For Flex button 1 enable or disable FO. For Flex button 2, press the **[SAVE]** button to reset the FO table. For Flex button 3, dial the table bin number to input data.
	For Flex button 3, use the dial-pad to enter the required data, refer to Table 2.3.11.4-1.
	3. Press the **[SAVE]** button to store the new data.

Table 2.3.11.4-1 FAIL-OVER ATTRIBUTES (PGM 333)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`ENABLE FoPSTN` `(1:ON/0:OFF) : ON`	This field is used to enable or disable Fail-over operation from the CM or LM.	0: OFF 1: ON	OFF
2	`INIT FoPSTN TABLE` `PRESS [SAVE] KEY`	This field is used to initialize the FO table.		
3	`FoPSTN ATTRIBUTES` `ENTER BIN NO(000-199)`		iPECS-Micro & iPECS-50 & MFIM100 0-99 MFIM300: 0-199 MFIM600: 0-299 MFIM1200 0~599	
3-1	`FoPSTN 001 NUM PLAN` `xxxxxxxx`	Station numbers associated with the remote system. A range can be indicated by using "*" to indicate the range.	Max 8 digits	
3-2	`FoPSTN 001 CO GROUP` `GRP NO (00-24) : 01`	This field defines the CO Group of the local system that will be used to place calls to the stations entered in the FO Numbering Plan, should WAN failure occur.		
3-3	`FoPSTN 001 TEL NUMBER` `xxxxxxxxxxxxxxxxxx`	This field defines the telephone number the system should dial to place a call to the stations entered in the FO Numbering Plan, should Wan failure occur. An "*" may be entered as a wild-card to indicate insertion of the dialed station number.	Max 20 digits	

2.3.11.5 TNET LM External Contact Attributes – PGM Code 334

Each LM incorporates relay contacts, which can be employed as a Door Lock Release. The contact activates a 3rd party Door Lock Release mechanism activated by dialing the Door Unlock code at a local station. Note assigning other functions to the contact may cause unexpected operation.

PROCEDURE:	
TNET LM EXT CONTACT **ENTER BIN NO (01-15)**	1. Press the **[PGM]** button and dial 334
LM(01) EXT CONTACT **PRESS FLEX_KEY (1-4)**	2. Select LM number (1-2 for iPECS-Micro, 01-50 for MFIM1200 and 01-15 for other MFIMs)
EXT CONTROL CONTACT **NO 1 : DLR**	Select Flex button 1~4 for the desired External Control contact.
	Use the dial-pad to enter desired data. 1: LBC + station number, (ex. 150) 2: Door Lock Release 3: External Page 1 access 4: External Page 2 access
	Press the **[SAVE]** button to store the External Contact data entry.

2.3.11.6 TNET LM Music Attributes – PGM Code 335

The CM does not provide BGM/MOH to an LM. The LM employs local BGM and MOH facilities, which reduces traffic load on the WAN and IP channel processors. The LM uses IP Multicast for local BGM and MOH transport.

PROCEDURE:	
TNET LM MUSIC ATTR **ENTER BIN NO (01-15)**	1. Press the **[PGM]** button and dial 335
MUSIC ASSIGN **PRESS FLEX_KEY (1-3)**	Select LM number (1-2 for iPECS-Micro, 01-50 for MFIM1200 and 01-15 for other MFIMs)
Refer to Table 2.3.11.6-1 **DISPLAY**	Select the desired Flex button, refer to Table 2.3.11.6-1.
	Use the dial-pad to select the desired Music Source, refer to Table 2.3.11.6-1.
	To save the Music Source, press the **[SAVE]** button.

Table 2.3.11.6-1 MUSIC SOURCES FOR MOH & BGM (PGM 335)

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	`BGM TYPE (0-3)` `MUSIC 1 (1)`	Assigns the source for BGM. Music 2 is not available in the iPECS-Micro and iPECS-50. And VSF MOH is not available in the iPECS-Micro.	00: Hold tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	1

Button	DISPLAY	DESCRIPTION	RANGE	DEFAULT
2	MOH TYPE (0-3) MUSIC 1 (1)	Assign the source for MOH. Music 2 is not available in the iPECS-Micro and iPECS-50. And VSF MOH is not available in the iPECS-Micro.	00: Hold tone 01: Music 1, 02: Music 2, 03: VSF MOH, 04: SLTMOH1, 05: SLTMOH2, 06: SLTMOH3, 07: SLTMOH4, 08: SLTMOH5, 09: VSFMOH2, 10:VSFMOH3	1
3	INT/EXT1 MUSIC (0:INT/1:EXT1): INT	Assigns the input for source 1 (Internal or External)	0: Internal 1: Ext. Music 1	0

2.3.11.7 TNET LM Alarm Attributes – PGM Code 336

The LM incorporates circuitry to monitor an external contact. This contact is most often employed as an Alarm indicator or Doorbell. The Alarm attributes define the operation of the monitoring circuitry. For the Alarm, the signal to the LM stations can be repeating or a single burst, the former is often desired. For the Doorbell, a single tone is sent each time the contact activates

PROCEDURE:	
TNET LM ALARM ATTR ENTER BIN NO (01-15)	1. Press the **[PGM]** button and dial 336.
LM(01) ALARM ATTR PRESS FLEX KEY (1-4)	Select LM number (1-2 for iPECS-Micro, 01-50 for MFIM1200 and 01-15 for other MFIMs)
Refer to Table 2.3.11.7-1 DISPLAY	Press the desired Flex button, refer to Table 2.3.6.3-1.
	Use the dial-pad to enter desired data for the attribute, refer to Table 2.3.6.3-1.
	Press the **[SAVE]** button to store the data entry.

Table 2.3.11.7-1 ALARM ATTRIBUTES (PGM 336)

Button	ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
1	ALARM ENABLE (1:ON/0:OFF) : OFF	This parameter enables the external contact monitoring circuitry.	0: OFF 1: ON	OFF
2	ALARM CONTACT TYPE (1:CLOSE/0:OPEN) : CLOSE	This parameter establishes the contact state that will activate the Alarm, close or open.	0: Open 1: Close	CLOSE
3	ALARM/DOORBELL MODE (1:ALARM/0:BELL): ALARM	The contact can be treated to function as a doorbell instead of an alarm.	0: Bell 1: Alarm	ALARM
4	ALARM SIGNAL MODE (1:RPT/0:ONCE) : RPT	The assigned stations will receive a Repeating signal or single burst (ONCE) of alarm tone.	0: Once 1: Repeat	RPT

2.3.12 RSGM & Remote Device Data – PGM CODES 430-435-

The RSGM (Remote Services Gateway Module) provides a number of local services in addition to transparent access to the host iPECS system. The RSGM is intended for use when connected to the iPECS via an unmanaged IP network. These include BGM/MOH, Alarm/Doorbell monitor and External Control contacts. RSGM capacity for each model is provided in Table 1.1-1. System Capacity Chart. The programs in this group allow for configuration of the RSGM identification and attributes for each RSGM unit.

2.3.12.1 RSGM & Remote Device Table -PGM Code 430-

The MAC address or MAC address and Password of all of remote devices including RSGM modules must be assigned in Admin 442 – Remote Registration table for proper registration. After registration is completed the MAC address, IP address and other device specific configurations will be displayed in Admin 430 table.

The registered MAC address can be modified for device replacement.

PROCEDURE:	
REMOTE DEVICE TABLE **SELECT BIN (001-035)**	1. Press the **[PGM]** button and dial 430.
TBL(001): 00405axxxxxx **PRESS FLEX KEY (1-5)**	Use the dial-pad to enter the RSGM device number (01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200). The **[VOL UP]/[VOL DOWN]** button can be used to scroll through bin numbers.
Refer to Table 2.3.12.1-1 **DISPLAY**	Press Flex button, 1~5, for the desired setting, refer to Table 2.3.12.1-1.
	Use the dial pad to enter the required data, refer to Table 2.3.12.1-1.
	Press the **[SAVE]** button to save any changes.

Table 2.3.12.1-1 REMOTE DEVICE (PGM 430)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	(001) DISP IP ADDRESS IP: 150.150.57.75	Display registered Remote device IP address	IPv4 Address	None
2	(001) SET MAC ADDRESS MAC: 00.40.50.Q0.17.4D	Use to input MAC address if the RSGM must be replaced.	12 digits	None
3	(001)STA DEV LIST NONE	Display registered RSGM iPECS Phone device list.		None
4	(001) SLT DEV LIST NONE	Display registered RSGM SLT device list.		None
5	(001)COL DEV LIST NONE	Display registered RSGM COL device list.		None

2.3.12.2 RSGM Multi-Cast RTP/RTCP Ports -PGM Code 431-

The iPECS system does not provide BGM/MOH to an RSGM. The RSGM employs local BGM and MOH facilities, which reduces traffic load on the WAN and IP channel processors. The RSGM uses IP Multicast for local BGM and MOH transport. There are two music sources available with the RSGM, an internal tone music source and an external source may be connected. Separate UDP port numbers are required for RTP and RTCP packets for each source. The system default established port numbers are programmable.

PROCEDURE:	
RSGM MUSIC ADDR **ENTER RANGE(001-035)**	1. Press the **[PGM]** button and dial 431.
001-001 MULTICAST ADDR **PRESS FLEX(1 –2)**	Use the dial-pad to enter the RSGM device number (01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200).
Refer to Table 2.3.12.2-1 **DISPLAY**	Press Flex button 1~2 to select RTP or RTCP port. Then select Flex button 1~2 for the port to be set, refer to Table 2.3.12.2-1.
	Use the dial-pad to enter the desired RTP/RTCP port to be used. Note the port numbers should not be duplicated and must be 4 digits.
	Press the **[SAVE]** button to save any changes.

Table 2.3.12.2-1 RSGM MULTI-CAST RTP PORTS (PGM 431)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	MCAST RTP PORT PRESS FLEX KEY (1-2)	Press Flex button 1~2 to select the RTP Internal or external music source ports.		
1-1	MCAST RTP BGM INT 8136	Use this entry to set the RTP port for an Internal music source.	4 digits	8186 (8187)
1-2	MCAST RTP BGM EXT1 8138	Use this entry to set the RTP port for an External music source.	4 digits	8188 (8189)
2	MCAST RTCP PORT PRESS FLEX KEY (1-2)	Press Flex button 1~2 to select the RTCP Internal or external music source ports.		
2-1	MCAST RTCP BGM INT 8136	Use this entry to set the RTCP port for the Internal music source.	4 digits	8186 (8187)
2-2	MCAST RTCP BGM EXT1 8138	Use this entry to set the RTCP port for the External music source.	4 digits	8188 (8189)

2.3.12.3 RSGM External Control Contact -PGM Code 432-

The RSGM incorporates a relay contact, which can be employed to control an external device. The contact is assigned to activate under one of several conditions. The contact activates as a Door Lock Release contact, activating when the Door Unlock code is dialed by the RSGM station. Other uses for the external contact are currently unavailable.

PROCEDURE:	
RSGM EXT CONTACT **ENTER RANGE(001-035)**	1. Press the **[PGM]** button and dial 432.
001-001 EXT CONTACT **PRESS FLEX(1 – 2)**	Use the dial-pad to enter the RSGM device number (01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200). Use the **[VOL UP]/[VOL DOWN]** button to scroll.
001-001 EXT CONTACT **NO 1 : . . . (1-1)**	Select Flex button 1~2 for the desired External Control contact circuit: Flex 1: Door Unlock
	Press the **[SAVE]** button to save any changes.

2.3.12.4 RSGM Alarm Attribute -PGM Code 433-

The RSGM incorporates circuitry to monitor an external contact. This contact is most often employed as an Alarm indicator or Doorbell. The Alarm attributes define the operation of the monitoring circuitry. For the Alarm, the signal to the RSGM stations can be repeating or a single burst, the former is often desired. For the Doorbell, a single tone is sent each time the contact activates. Refer to Table 2.3.12.4-1 for a description of the features, the data entries required and LCD displays for each attribute.

PROCEDURE:	
RSGM ALARM ATTR **ENTER RANGE(001 – 035)**	1. Press the **[PGM]** button and dial 433.
001-001 ALARM ATTR **PRESS FLEX (1 – 4)**	Use the dial-pad to enter the RSGM device number (01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200).
Refer to Table 2.3.12.4-1 **DISPLAY**	Press Flex button 1~4 for the desired attribute, refer to Table 2.3.12.4-1.
	Use the dial pad to enter the required data, refer to Table 2.3.12.4-1.
	Press the **[SAVE]** button to save any changes.

Table 2.3.12.4-1 RSGM ALARM ATTRIBUTES (PGM 433)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	001-001 ALARM ENABLE (1:ON/0:OFF) : OFF	Selecting Flex button 1 allows the contact monitoring circuitry to be enabled or disabled.	0: OFF 1: ON	OFF

2	001-001 CONTACT TYPE (1:CLOSE/0:OPEN) : CLOSE	This parameter establishes the contact state that will activate the Alarm, close or open.	0: Open 1: Close	CLOSE
3	001-001 ALARM/DOORBELL (1:ALARM/0:BELL) : ALARM	The contact can be treated to function as a doorbell instead of an alarm.	0: Door 1: Alarm	ALARM
4	001-001 SIGNAL MODE (1:RPT/0:ONCE) : RPT	The assigned stations will receive a Repeating signal or single burst (ONCE) as the alarm tone.	0: Once 1: Repeat	RPT

2.3.12.5 RSGM Music Assignment -PGM Code 434-

The RSGM provides Background Music (BGM) to the local iPECS Phone. It also provides MOH to the local CO Line when placed on hold. BGM is provided from the assigned 'Music' source, which may be internal or an external source may be connected. MOH may use the assigned 'Music' source or an internal "hold tone".

PROCEDURE:	
RSGM MUSIC ASSIGN ENTER RANGE(001 – 035)	1. Press the **[PGM]** button and dial 434.
001-001 MUSIC ASSIGN PRESS FLEX(1 – 2)	Use the dial-pad to enter the RSGM device number (01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200).
Refer to Table 2.3.12.5-1 DISPLAY	Press Flex button 1~2 for the desired setting, refer to Table 2.3.12.5-1.
	Use the dial pad to enter the required data, refer to Table 2.3.12.5-1.
	Press the **[SAVE]** button to save any changes.

Table 2.3.12.5-1 RSGM MUSIC ASSIGNMENTS (PGM 434)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	001-001 MOH TYPE (0-1) MUSIC 1 (1)	Assigns the source for MOH.	0: Hold Tone 1: Music	Music
2	001-001 INT/EXT1 MUSIC (0:INT/1:EXT1) : INT	Assigns the input for source 1 (Internal or External). This is the source for BGM/MOH 'Music'.	0: Internal 1: External 1	Internal

2.3.12.6 RSGM Service Attributes -PGM Code 435-

When connected over an unmanaged network (internet), an RSGM communicates with the iPECS resources and other users by way of a VoIP channel. The system includes VoIP interface channels in most MFIMs, refer to Table 1.1-1, which are intended for use over a managed network (LAN/WAN). The VOIM (Voice over IP Module) provides additional channels that are intended for use over an unmanaged network. VOIM channels support IPSec and adjustable DiffServ pretag. The IP channels are assigned to a CO/IP line group, refer to CO/IP Attributes in **PGM CODE** 141. The MFIM and VOIM VoIP channels should be assigned to different CO/IP line groups. This entry then determines which CO/IP Line group will be used for communication with the RSGM. To assure that IPSec support is provided, the RSGM should be assigned to use a group with IP channels only from a VOIM.

The IP header TOS byte is employed to define a Differentiated Services Code Point (DSCP), which is used by routers to prioritize packets. Most routers will prioritize packets with higher DiffServ Code Points. However, should delays through the router become significant, high priority DSCP packets are the first discarded. Under high packet loss, decreasing a high DSCP, may in fact improve performance.

The RSGM local PSTN line, if equipped, is assigned as the user's Private Line. The user may access this Line automatically when dialing "9", or may access a CO/IP channel from the first CO/IP Group as defined in **PGM CODE** 141, button 1.

PROCEDURE:

REMOTE SERVICE ATTR **ENTER RANGE(001 – 035)**	1. Press the **[PGM]** button and dial 435.
001-001 RMT SERVE ATTR **PRESS FLEX KEY (1~4)**	Use the dial-pad to enter the RSGM device number(01~13 for the iPECS-Micro, 01~25 for the iPECS-50, 01~35 for the MFIM100, 001~150 for the MFIM300 and 001~300 for the MFIM600 and 001~600 for the MFIM1200). Use the **[VOL UP]/[VOL DOWN]** button to scroll.
Refer to Table 2.3.12.6-1 **DISPLAY**	Press Flex button 1~4 for the desired setting, refer to Table 2.3.12.6-1.
	Use the dial pad to enter the required data, refer to Table 2.3.12.6-1.
	Press the **[SAVE]** button to save any changes.

Table 2.3.12.6-1 REMOTE SERVICE ATTRIBUTE ASSIGNMENTS (PGM 435)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	001-001 RTP RLY G/W SEQ RTP RELAY G/W SEQ: .	When connected via an unmanaged network, RTP packets are exchanged over an IP channel from the assigned VOIM gateway	Number of Slots	NULL
2	001-001 DIFFSERV CODE(00-63) : 04	DiffServ preferred option value.	00~63	4
3	001-001 FIRST CO ACCESS RSG(0)/SYS(1) : RSG	Select RSGM or System CO line for "1st CO line access".	0: RSGM 1: SYS	RSGM
4	001-001 F/W PROTECTED (1:ON/0:OFF) : OFF	Firewall Protected value is automatically set by the system.	0: OFF 1: ON	ON

2.3.13 Zone Data – PGM CODES 436-441, 444

Zone data is a tool employed to easily manage the characteristics of groups of devices under the control of an MFIM. Often, devices are installed in groups with common characteristics. Such devices can be grouped to a Zone to define common characteristics including Country Code, DSCP, RTP packet handling, etc. Common attributes are defined at the device, Zone and Inter-zone level. Device settings have priority over Zone settings, while Zone settings have priority over system settings.

Generally, transport of RTP packets should be a peer-to-peer communication over either a LAN or VPN. If iPECS devices are separated by a NAPT server or direct peer-to-peer communications is not available, packet relay must be employed to assure communication. In packet relay, RTP packets are received by a local VoIP channel (MFIM or VOIM), which is under control of the MFIM, and the IP address is translated from a public to the device's private address. The VOIM VoIP channels implement a secure channel using IPSec protocol. Devices can be assigned as part of an "RTP Relay group" to use the same VoIP channels to implement relay of RTP packets. Packet relay groups also provide for conversion of multi-cast packets from the MFIM to uni-cast and back again at the group level to multi-cast. Note packet relay requires an MFIM or VOIM VoIP channel be available locally for each simultaneous call that requires packet relay. Programs 436 to 441 define device zone assignments and zone configurations. These programs are available only in Web admin. Holiday and Vacation assignments for each zone are defined in Program 444.

2.3.13.1 Zone Holiday Assignment -PGM Code 444-

Holidays and vacation day intervals for each zone can be established to define a specified Service mode (Day, Night, and Timed) Up to 40 holidays and 5 vacation intervals can be defined.

PROCEDURE:	
ZONE HOLIDAY ASSIGNMENT **ENTER BIN (01-32)**	1. Press the **[PGM]** button and dial 444.
ZONE(01) HOLIDAYATTR **PRESS FLEX KEY (1-3)**	Use the dial-pad to enter the bin (Zone) number (01~32).
Refer to Table 2.3.13.1-1 **DISPLAY**	Press the Flex button, 1 ~ 3, for the desired setting, refer to Table 2.3.13.1-1.
	Use the dial pad to enter the required data, refer to Table 2.3.13.1-1.
	Press the **[SAVE]** button to save any changes.

Table 2.3.13.1-1 ZONE HOLIDAY ASSIGNMENT (PGM 444)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	ZONE(01) RING MODE(0-3) TIMED-R	Enter the desired Service mode for the Holiday or Vacation.	0 -3 0:DAY 1: NIGHT 2:TIMED 3: N/A	TIMED
2	ZONE(01) VACATION ENTER BIN NO(1-5)	Assign a date range for the vacation entering the start and end dates as yymmdd - yymmdd.	12 digits	None
3	ZONE(01) HOLIDAY ENTER BIN NO(01-)	Assign a date for the holiday for the Zone as mmdd	4 digits	None

2.3.14 INITIALIZATION -PGM Code 450-

The system has been pre-programmed with certain features, which are based on the default database. The defaults are loaded into memory when the system is initialized. The system should always be initialized when installed or the database is suspected of being corrupt. The system can be initialized manually during installation, refer to the iPECS Description & Installation Manual, section 4.4.2.

This program allows all or any of several distinct portions or the database to be initialized, returned to default.

PROCEDURE:

INITIALIZATION **PRESS FLEX KEY (1-14)**	1. Press the **[PGM]** button and dial 450.
Refer to Table 2.3.14-1 **DISPLAY**	Select a Flex button to initialize the desired data, refer to Table 2.3.14-1.
	Press the **[SAVE]** button, the selected data is initialized and confirmation tone is received.

Table 2.3.14-1 INITIALIZATION DATA (PGM 450)

Button	DISPLAY	REMARK
1	INITIALIZATION FLEX NUM PLAN	
2	INIT STATION DATA STATION DATA(ENT STA RNG)	
3	INIT COL DATA COL DATA(ENT COL RNG)	
4	INIT COL DATA SYSTEM DATA	
5	INITIALIZATION STATION GROUP	
6	INITIALIZATION ISDN TABLES	
7	INITIALIZATION SYSTEM TIMER	
8	INITIALIZATION TOLL TABLES	
9	INITIALIZATION LCR DATA	
10	INITIALIZATION OTHER TABLES	
11	INITIALIZATION FLEX BUTTON	
12	INITIALIZATION NET DATA	
13	INITIALIZATION ALL DATA	
14	SYSTEM RESTART RESTART NOW	

2.3.15 PRINT-OUT DATABASE -PGM Code 451-

The system can output all or portions of the system database in order to provide a 'hard-copy'. The data is output over the appropriate Serial port (Serial 1 or Serial 2).

PROCEDURE:	
DATABASE PRINT OUT PRESS FLEX KEY (01-21)	1. Press the **[PGM]** button and dial 451.
Refer to Table 2.3.15-1 DISPLAY	Select Flex button 1~21 to output the desired data, refer to Table 2.3.15-1.
	For Station, Station Flex buttons, and CO/IP line data, use the dial pad to enter the desired range for stations or CO/IP lines, or for all skip this step.
	Press the **[SAVE]** button, after output, confirmation tone is heard.

Table 2.3.15-1 DATABASE PRINT OUT (PGM 451)

Button	DISPLAY	REMARK
1	DATABASE PRINT OUT FLEX NUM PLAN	
2	DATABASE PRINT OUT IP SETTING PLAN	
3	DATABASE PRINT OUT STA DATA(ENT STA RNG)	A station range must be entered to output the Station data.
4	DATABASE PRINT OUT COL DATA(ENT COL RNG)	A CO/IP line range (01~42) must be entered to output CO/IP data.
5	DATABASE PRINT OUT SYSTEM DATA	
6	DATABASE PRINT OUT STATION GROUP	
7	DATABASE PRINT OUT ISDN TABLES	
8	DATABASE PRINT OUT SYSTEM TIMER	
9	DATABASE PRINT OUT TOLL TABLES	
10	DATABASE PRINT OUT LCR DATA	
11	DATABASE PRINT OUT OTHER TABLES	
12	DATABASE PRINT OUT NATION SPECIFIC	
13	DATABASE PRINT OUT FLX BTN(ENT STA RNG)	A station range must be entered to output the Station Flex button data. Data may be output in 20 or 10 character format, see Flex button 17 below.
14	DATABASE PRINT OUT ALL DATA	
15	DATABASE PRINT OUT LCD PRINT(0-2):NORMAL 24	
16	DATABASE PRINT OUT TO QUIT PRESS [SAVE]	

Button	DISPLAY	REMARK
17	STRING LENGTH (1:20/0:10): 20(CHAR)	The Station Flex button print out can be provide in a 20 or 10 character format, default is 20 characters.
18	DATABASE PRINT OUT BOARD ATTRIBUTES	
19	DATABASE PRINT OUT NETWORKING TABLE	
20	FLEX BTN LCD PRINT STR LEN(0-1): 20	Print out strings those are used in flexible button to display the content .
21	WORKING LCD PRINT	Print out strings those are used to activate some features.

2.3.16 VIRTUAL TRACE DIP-SWITCH -PGM Code 452-

The Virtual Trace Dip-switch is used to enable and disable traces for various functions as defined in Table 2.3.16-1.

PROCEDURE:	
VIRTUAL TRACE DIP SW PRESS FLEX KEY (1-9)	1. Press the **[PGM]** button and dial 452.
Refer to Table 2.3.16-1 DISPLAY	To enable trace, press the desired trace button 1-9. The Flex button LEDs indicate trace setting, On/Off, press the desired Flex button to toggle Trace Enable, LED on: trace enable, LED off: trace disabled.
	To enable selected trace settings, press the **[SAVE]** button.

Table 2.3.16-1 VIRTUAL TRACE DIP-SWITCH (PGM 452)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	VIRTUAL TRACE DIP SW CALL TRACE : (OFF)	'Call Trace' is enabled for output.	0: OFF 1: ON	OFF
2	VIRTUAL TRACE DIP SW VOIP TRACE : (OFF)	VoIP Trace is enabled for output	0: OFF 1: ON	OFF
3	VIRTUAL TRACE DIP SW HTTP TRACE : (OFF)	HTTP Trace is enabled for output.	0: OFF 1: ON	OFF
4	VIRTUAL TRACE DIP SW MULTICAST TRACE : (OFF)	Multicast Data (normally registration data between MFIM and local mode device) Trace is enabled for output.	0: OFF 1: ON	OFF
5	VIRTUAL TRACE DIP SW CTI TRACE : (OFF)	CTI Device Trace is enabled for output.	0: OFF 1: ON	OFF
6	VIRTUAL TRACE DIP SW RAW DATA TRACE : (OFF)	Detailed Data Trace is enabled.	0: OFF 1: ON	OFF
7	VIRTUAL TRACE DIP SW MPMP TRACE: (OFF)	MFIM to MFIM Data Trace is enabled for output.	0: OFF 1: ON	OFF
8	VIRTUAL TRACE DIP SW CPU RE TRACE: (OFF)	CPU Redundancy Data Trace is enabled for output.	0: OFF 1: ON	OFF
9	VIRTUAL TRACE DIP SW MSC/VSF TRACE:(OFF)	MISC/VSF Trace is enabled for output.	0: OFF 1: ON	OFF

2.3.17 VIRTUAL DIP-SWITCH -PGM Code 453-

The Virtual Dip Switch is employed to change from in-band to SMDI for External Voice Mail communications and manually poll each IP KTS device.

PROCEDURE:	
VIRTUAL DIP SWITCH **PRESS FLEX KEY (1-6)**	1. Press the **[PGM]** button and dial 453.
Refer to Table 2.3.17-1 **DISPLAY**	To enable trace, press desired Flex button 1~6. The Flex button LEDs indicates Dip switch setting, On/Off. Press the desired Flex button to toggle setting, LED On: enabled, LED Off: disabled.
	To enable call trace, press the **[SAVE]** button.

Table 2.3.17-1 VIRTUAL DIP-SWITCH (PGM 453)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	VIRTUAL DIP SWITCH DEVICE POLLING: (ON)	'Device polling'. if enabled (On), the system will check each registered device, Gateway and iPECS Phone to determine if the device is alive or not.	0: OFF 1: ON	ON
2	VIRTUAL DIP SWITCH SMDI SETTING: (OFF)	SMDI setting is enabled for output	0: OFF 1: ON	OFF
3	VIRTUAL DIP SWITCH MULTICAST LED: (OFF)	If this value is set, the LED commands from MFIM will be sent to gateways/terminals in the multi-cast mode.	0: OFF 1: ON	OFF
4	VIRTUAL DIP SWITCH AUTO NEGO: (AUTO)	This field enables negotiation of speed between the LAN switch port and the system.	0: AUTO 1: MANUAL	AUTO
5	VIRTUAL DIP SWITCH FULL-HALF: (FULL)	The duplex mode of LAN connections can be set according to this field.	0: FULL 1: HALF	FULL
6	VIRTUAL DIP SWITCH 10-100 TX: (100)	The speed of the Ethernet interface is established based on this field, 10 Base T or 10/100 Base T.	0: 100 1: 10	100

2.3.18 DECT ATTRIBUTES-PGM Code 491

DECT Attributes define functions associated with the DECT equipment and operation. Generally, the entry will turn the feature ON (enable) or OFF (disable).

PROCEDURE:	
DECT ATTRIBUTES **PRESS FLEX KEY (1-3)**	1. Press the **[PGM]** button and dial 491.
See Table 2.3.18-1 **DISPLAY**	Press the Flex button for the desired Attribute, refer to Table 2.3.18-1.
	2. Use the dial pad to enter the required data.
	3. Press the **[SAVE]** button to store the data entry.

Table 2.3.18-1 DECT ATTRIBUTES (PGM 491)

Button	DISPLAY	REMARK	RANGE	DEFAULT
1	AUTO CALL RLS (1:ON/0:OFF) : OFF	If enabled, when the other party of an active internal call disconnects, the LG-Nortel GDC-400H returns to idle .	0: OFF 1: ON/	OFF
2	BASE FAULT ALARM (1:EN/0:DIS) : DISABLE	If enabled, DECT Base station (GDC-400B) alarms are sent to the Attendant.	0: Disable 1; Enable	Disable
3	CHAIN FAULT ALARM (1:EN/0:DIS) : DISABLE	If enabled, WTIM chain fault alarms are sent to the Attendant.	0: Disable 1; Enable	Disable

3. WEB SERVICE

3.1 GENERAL

iPECS incorporates a Web Server located in the MFIM, which is employed by the system's Web Service. Using a Web browser the system's Web Server can be accessed and the database managed in a user-friendly environment. In addition to modifying the system database, Web Admin provides for system file upload, remote upgrade, and database download.

The iPECS default database includes assignment of a private IP address to the system. This address (10.10.10.2) may be used to access the system from the LAN. However, a routable IP address must be assigned for access from a remote location refer to section 3.2.1.

To access the iPECS Web Server requires:

Operating iPECS series system
IP address assigned in MFIM and is known
TCP port assigned in MFIM and is known
iPECS connected to an accessible LAN
iPECS password (Maint, Admin, User) if any, is known,

3.1.1 PC/Browser

MS Explore 5.5 is recommended.
Windows PC, at least 32MB RAM (64MB or more RAM is recommended)
NIC (Network Interface Card).

3.1.2 Environment for LAN connection

IEEE 802.3, 10/100 Base T
Static/DHCP addressing
Firewall, requires Network Administrator to allow access.
Remote access requires a routable public/private IP address for the iPECS system Web server. This must be assigned to the system prior to access.

3.1.3 Web Browser setting

Web browsers may store (cache) a copy of the iPECS Web pages in a cache memory. The Web browser may use these copies to provide a "quick view". If the Web page has been altered by data entered in Station Admin or a file upgrade, the cached copy will be out-of-date and could cause unexpected system operation. To assure proper page views and data entry, the browser can be set to eliminate the use of the cached pages.

Run MS Internet Explore 5.5 in your PC and click "Tools"
Click "Internet Options"

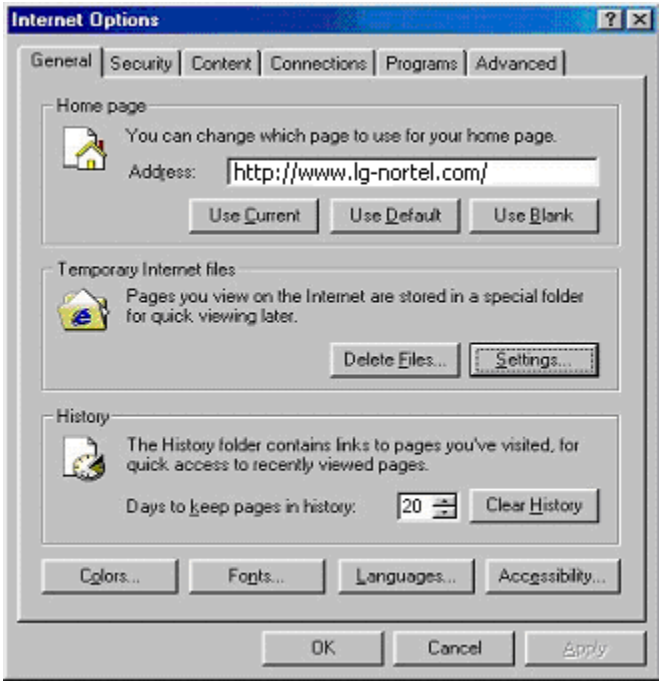


Figure 3.1.3-1 MS Internet Explore Options General Menu

Click “Settings” in Temporary Internet files

Figure 3.1.3-2 MS Internet Explore Settings Menu

Check “Every visit to the page” and click “OK”

3.2 WEB HOME PAGE

3.2.1 Browser Access

During initialization a default database is established, refer to section 1.3. While the system will function employing the defaults, there are several data entries, which MUST be completed to assure proper operation of the system. The system employs the Country Code,, to establish tone and gain plans specific to the country. In addition, the MFIM IP address, sub-net mask and Router IP address must be assigned for proper external IP call operation, Remote services and Remote Admin access.

In the browser 'ADDRESS' field, enter the MFIM IP address and TCP port. Select GO; the Web server returns the iPECS Web Services Home page, Figure 3.2.1-1. On the Home page, one of three services may be selected, the brief User's Guide, Station Program or Admin & Maintenance.

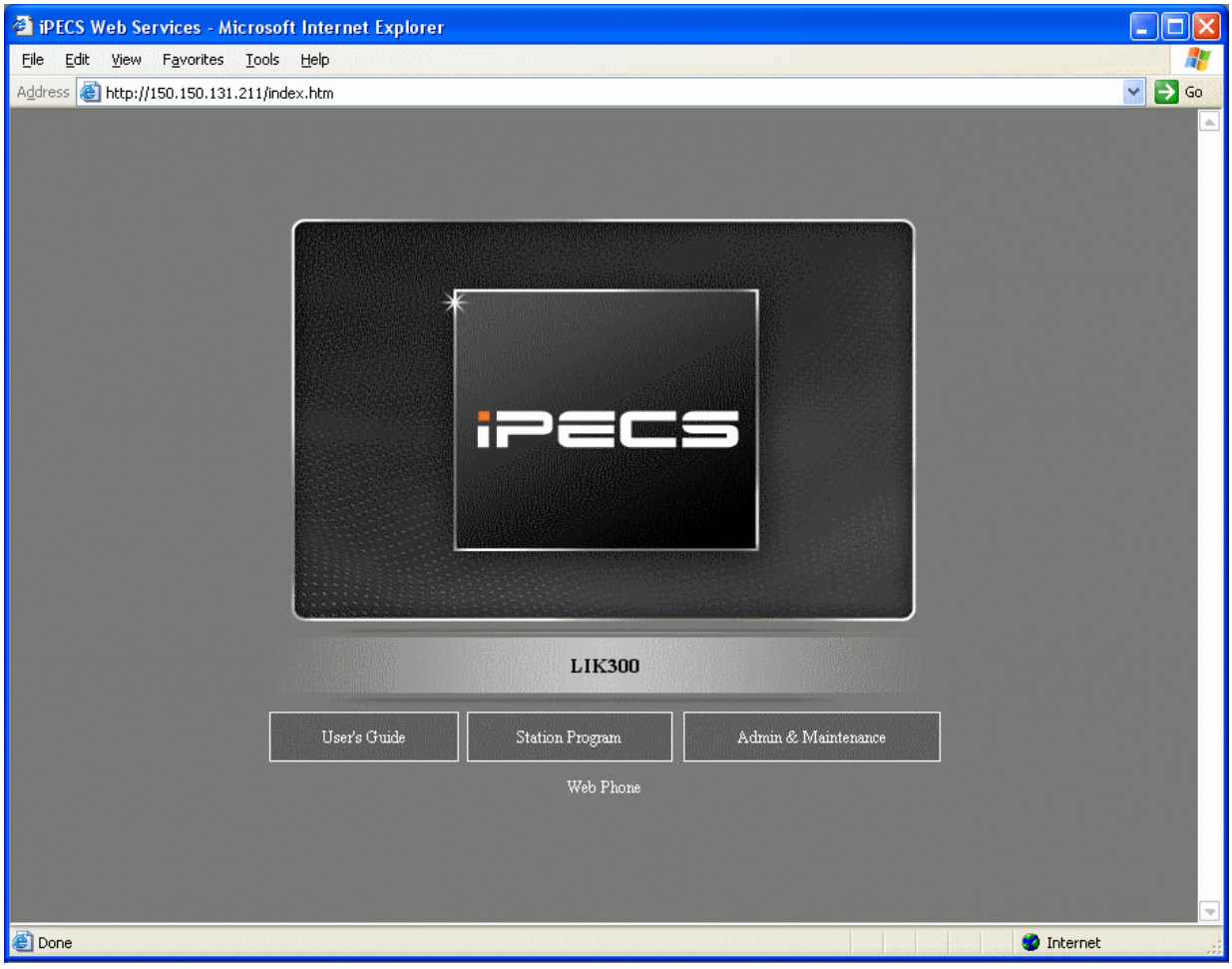
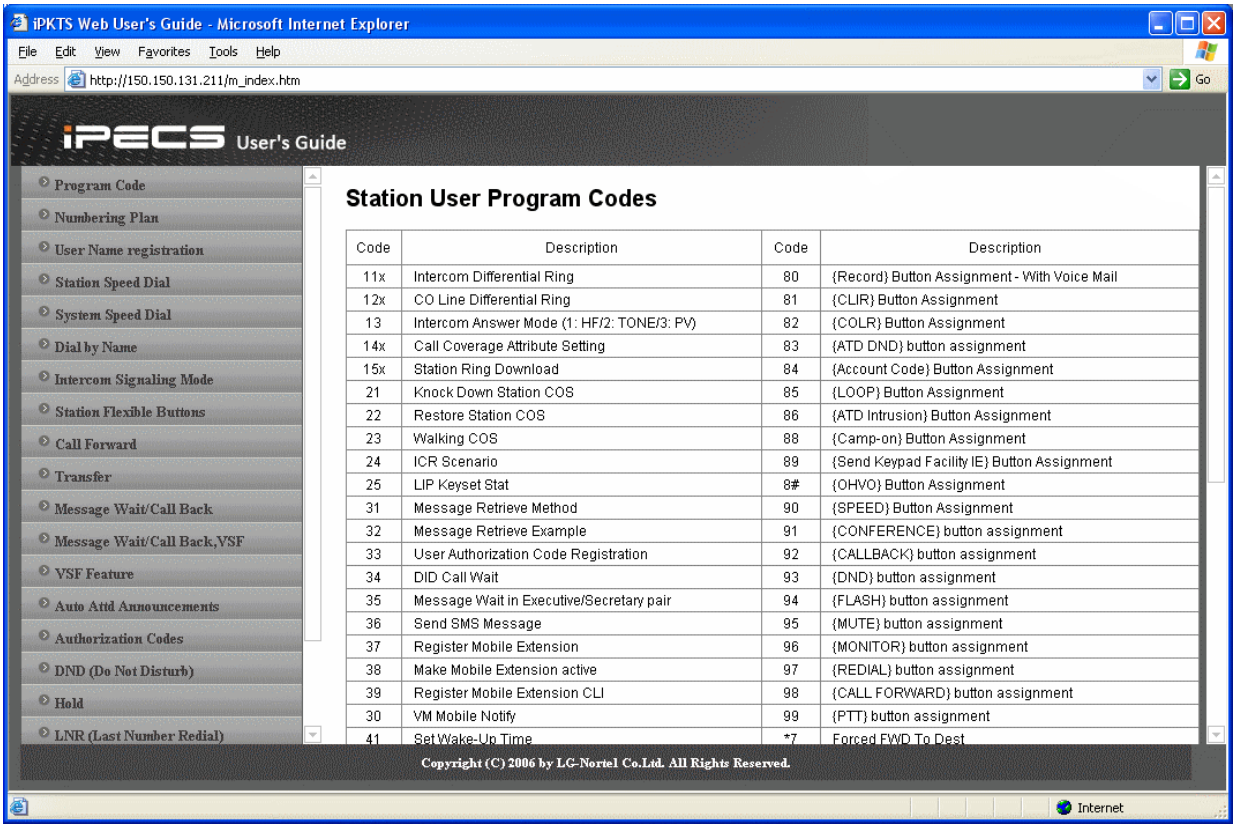


Figure 3.2.1-1 iPECS Home page

3.2.2 User's Guide

Selecting the User's Guide will display a brief user manual. The user may select a feature from the left frame, as shown in Figure 3.2.2-1 below, to select a brief description of the feature, which then will be displayed in the right frame.


iPKTS Web User's Guide - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/m_index.htm
Go
iPECS User's Guide
Program Code
Numbering Plan
User Name registration
Station Speed Dial
System Speed Dial
Dial by Name
Intercom Signaling Mode
Station Flexible Buttons
Call Forward
Transfer
Message Wait/Call Back
Message Wait/Call Back,VSF
VSF Feature
Auto Attd Announcements
Authorization Codes
DND (Do Not Disturb)
Hold
LNR (Last Number Redial)
Station User Program Codes
Code Description Code Description
11x Intercom Differential Ring 80 {Record} Button Assignment - With Voice Mail
12x CO Line Differential Ring 81 {CLIR} Button Assignment
13 Intercom Answer Mode (1: HF/2: TONE/3: PV) 82 {COLR} Button Assignment
14x Call Coverage Attribute Setting 83 {ATD DND} button assignment
15x Station Ring Download 84 {Account Code} Button Assignment
21 Knock Down Station COS 85 {LOOP} Button Assignment
22 Restore Station COS 86 {ATD Intrusion} Button Assignment
23 Walking COS 88 {Camp-on} Button Assignment
24 ICR Scenario 89 {Send Keypad Facility IE} Button Assignment
25 LIP Keyset Stat 8# {OHVO} Button Assignment
31 Message Retrieve Method 90 {SPEED} Button Assignment
32 Message Retrieve Example 91 {CONFERENCE} button assignment
33 User Authorization Code Registration 92 {CALLBACK} button assignment
34 DID Call Wait 93 {DND} button assignment
35 Message Wait in Executive/Secretary pair 94 {FLASH} button assignment
36 Send SMS Message 95 {MUTE} button assignment
37 Register Mobile Extension 96 {MONITOR} button assignment
38 Make Mobile Extension active 97 {REDIAL} button assignment
39 Register Mobile Extension CLI 98 {CALL FORWARD} button assignment
30 VM Mobile Notify 99 {PTT} button assignment
41 Set Wake-Up Time *7 Forced FWD To Dest
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Internet

Figure 3.2.2-1 User's Guide

3.2.3 Station Program

If the Station Program item is selected from the Home page, the user receives the Station Program displays starting with the Station Program password Web page, refer to Figure 3.2.3-1. Note that if a password is not assigned for the station, the user will not be able to log in to the Station Program Web page. For detailed descriptions, refer to section 3.8 STATION PROGRAM.

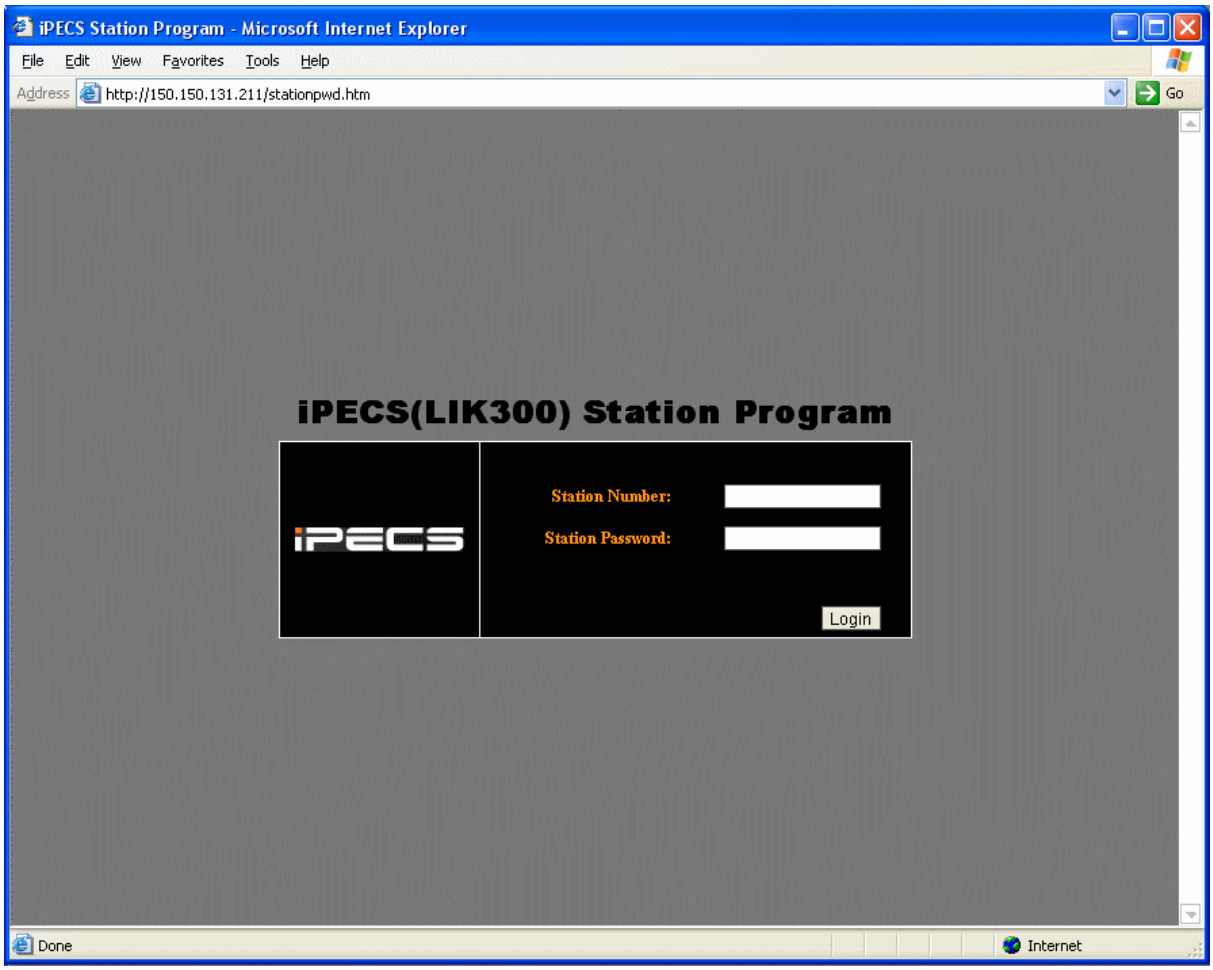


Figure 3.2.3-1 Station Password

3.2.4 Web Admin & Maintenance

If the Admin & Maintenance item is selected from the Home page, the user receives the Admin & Maintenance displays. For detailed descriptions, refer to section 3.4.

3.3 WEB ADMIN DATA MODIFICATION & ACCESS

3.3.1 Web Admin Data Modification

Each of the system's data entry Web pages includes a frame for data display and modification. To modify data, click in the data field, either a drop-down menu will appear for entry selection or a cursor will appear in the field and the user may type in the data required. Once all new data for a Web page has been entered, the SAVE button must be clicked to send the new page to the system and save the modified data.

Some of the Web pages include blue colored text in the table headers. Selecting this text will order the table based on the column selected.

In some cases, where mentioned, it may be necessary to reset the system. The system can be reset manually as described in the iPECS Installation and Description Manual or by selecting the Reset System button on the Initialization Web page.

3.3.2 Maintenance & Admin Password

On the Home page, click Admin & Maintenance, the Web server returns the password Web page, refer to Figure 3.3.2-1. The iPECS System supports a multi-level password structure. The Maintenance Password controls the access rights of the Admin and User level passwords. It is highly recommended that a password be assigned. In addition, the Web password can be encrypted, see section 3.3.3.

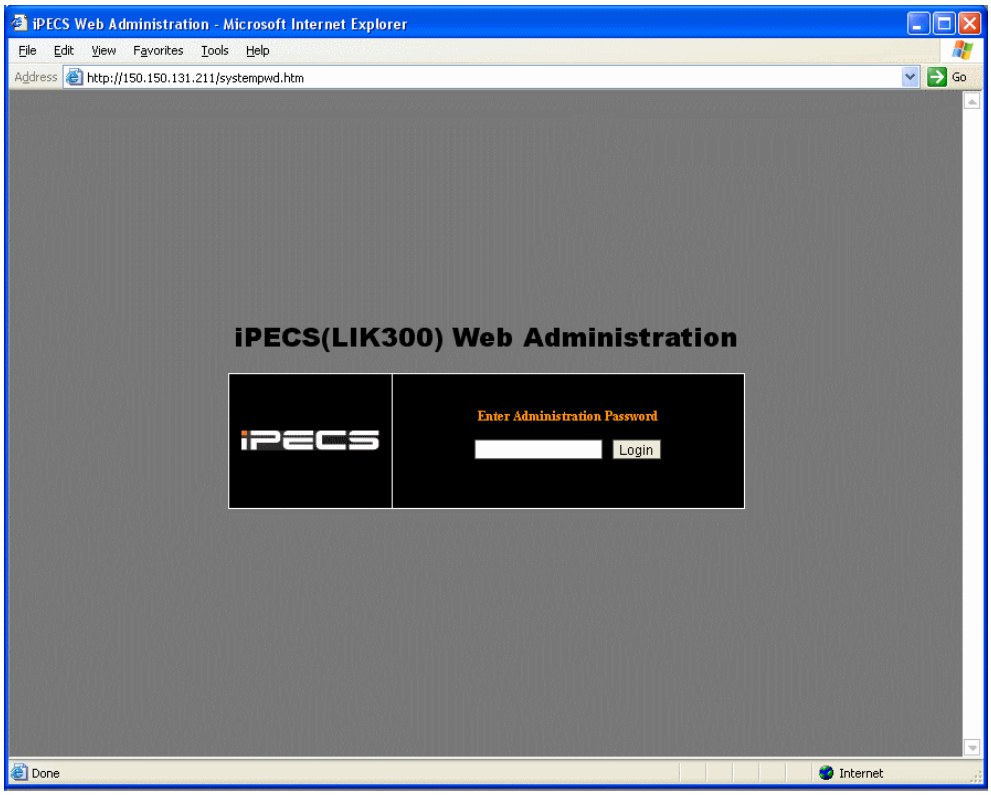


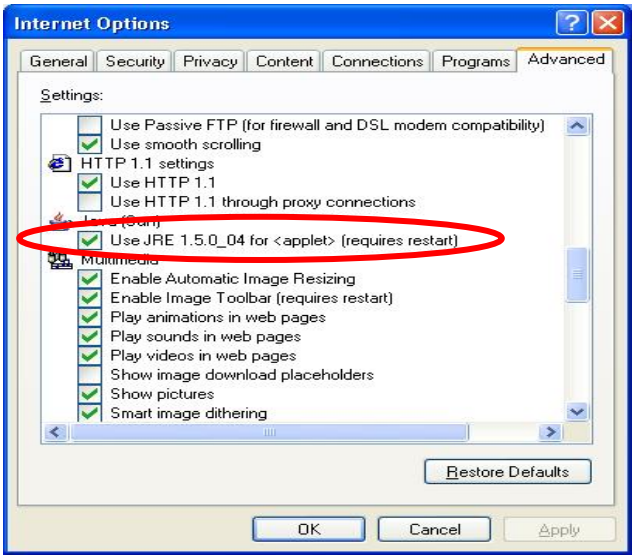
Figure 3.3.2-1 System Password

3.3.3 Password Encryption

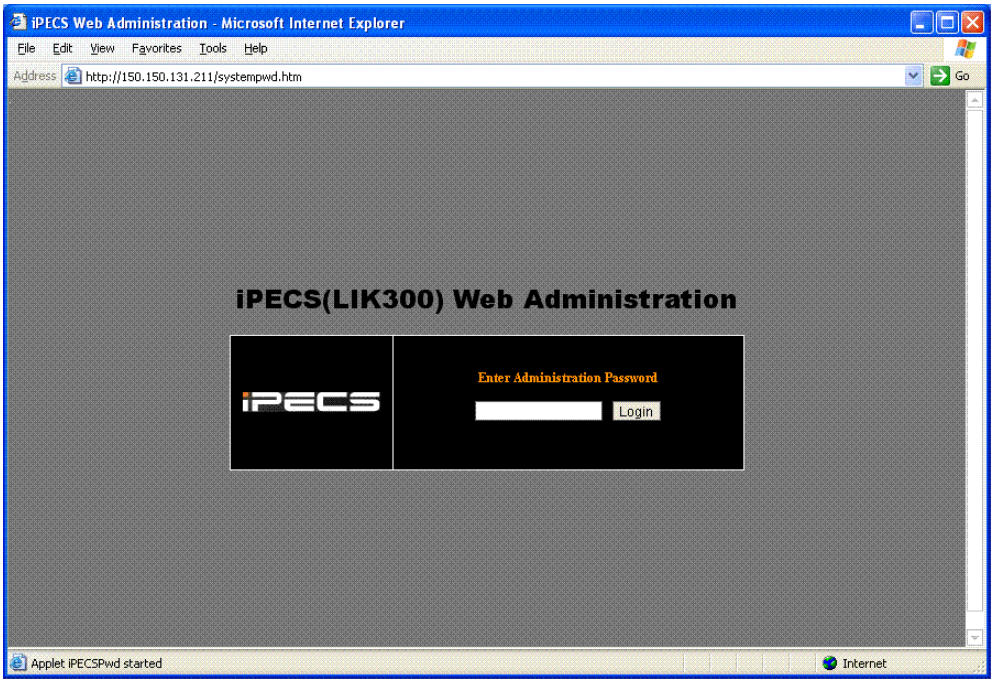
iPECS will, when enabled in **PGM CODE** 161, implement decryption of the password employing RC-6 block encryption. iPECS employs a Sun Java Virtual Machine applet to implement AES encryption. The PC entering the Password must have a JAVA Virtual Machine and the JRE (Java Runtime Environment) Explorer option enabled to properly handle encrypted passwords. The Sun JVM is downloaded from the Java home page (www.java.com). Once downloaded, execute the downloaded file. To enable the Explorer JRE option,

From the Explorer menu select Internet Options-Advanced.

From the Advanced Internet Options check the "Use JRE…." Option.



After Restarting the computer, access the iPECS Web password page. "Applet iPECSPwd started" will display in the bottom left corner to indicate password encryption is active.



3.4 WEB ADMIN & MAINTENANCE OVERVIEW

In the Web Admin initial screen (see section 3.3.3), enter the password and 'click' the Login button to access the iPECS Admin & Maintenance Main Page, refer to Figure 3.4-1. Based on the password entered, access to database items and maintenance functions may be limited.

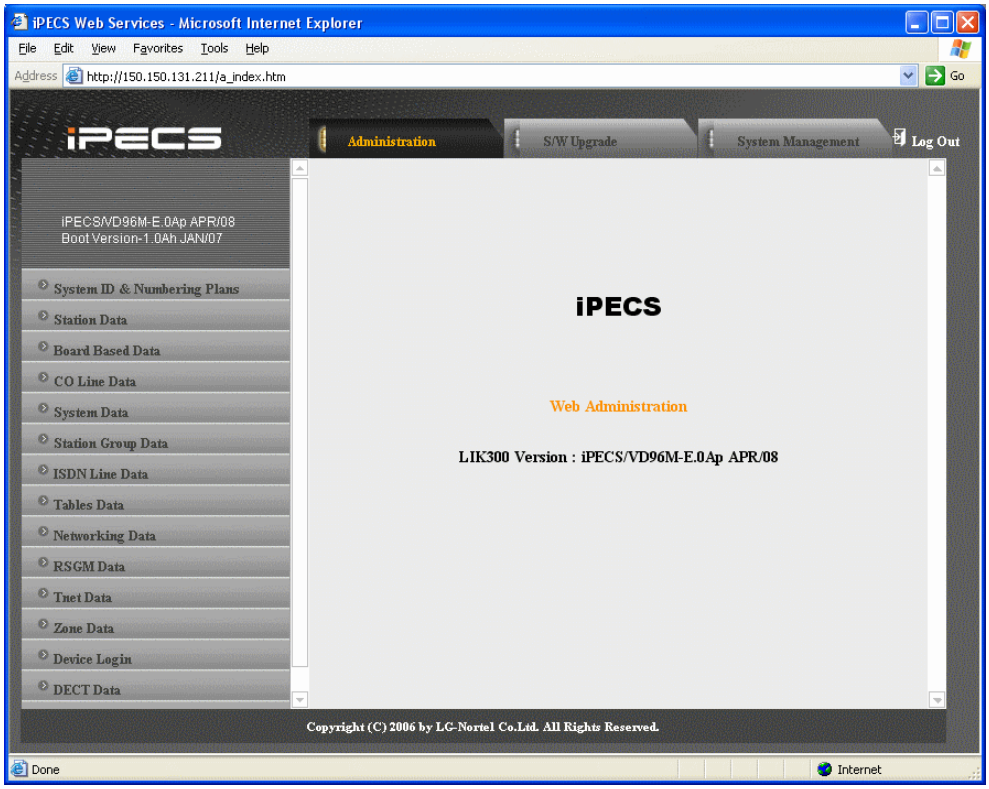


Figure 3.4-1 iPECS Admin & Maintenance Main Page

The Admin & Maintenance Main Page has three sections,

- Menu bar – Upper frame
- Web site directory & navigation section – Left frame
- Info and Entry section – Central frame

Items in the Menu bar are mouse clickable for selections of:

- Administration –access to system database
- File Upload & Remote Upgrade –permits upload of operating files to MFIM system and module memory.
- Maintenance –permits databases to be downloaded including, all data, system speed dial, LCR, and SMDR.

3.5 iPECS WEB ADMINISTRATION

To enter the system database, select the iPECS Administration item in the menu bar. The Administration Navigation frame will be displayed on the left, refer to Figure 3.5-1.

Figure 3.5-1 Admin Menu

3.5.1 System ID & Numbering Plans

Selecting the System ID & Numbering Plans program group returns the sub-menu displayed in Figure 3.5.1-1.

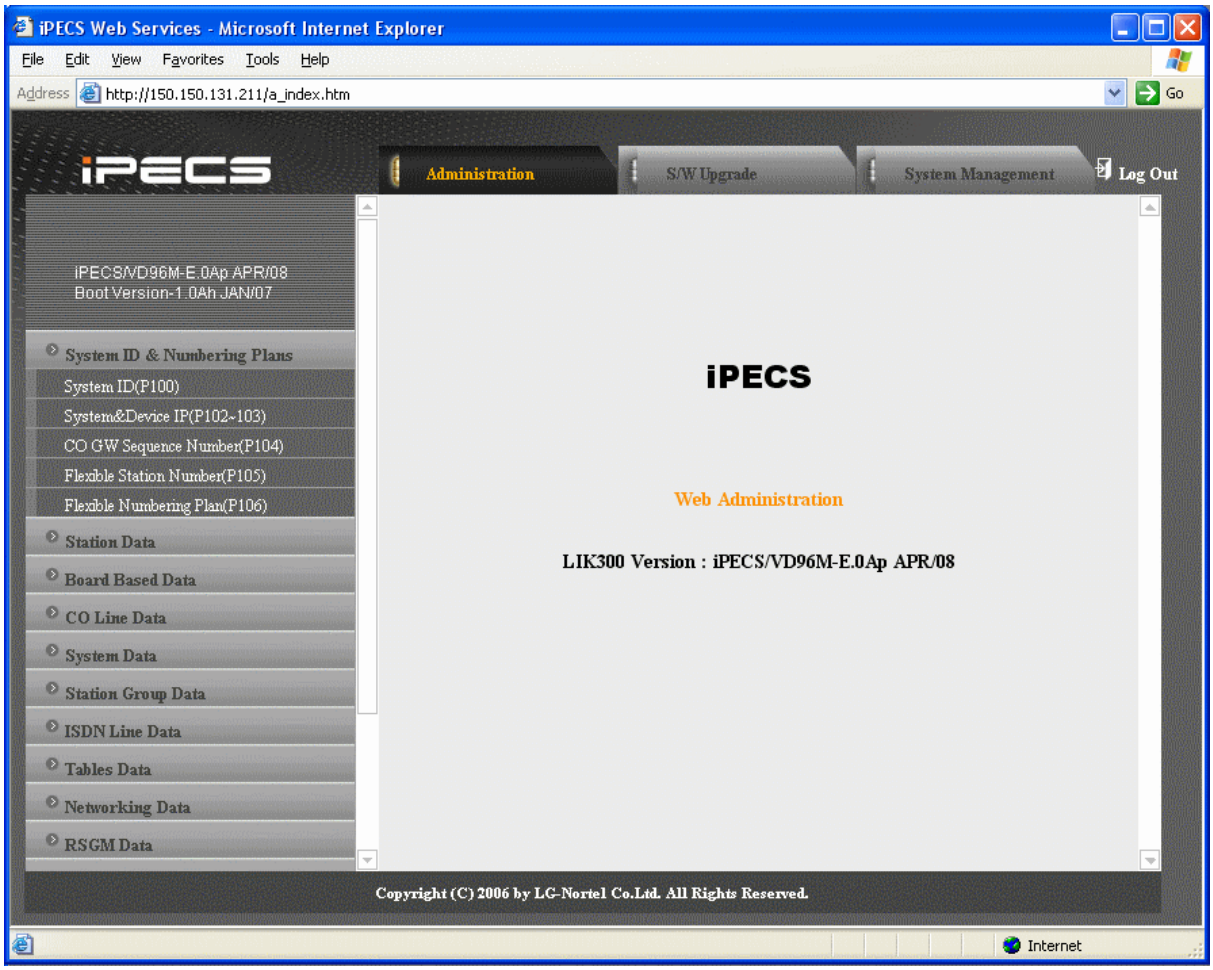


Figure 3.5.1-1 System ID & Numbering Plans sub-menu

3.5.1.1 System ID

Re: **PGM CODE** 100

Selecting System ID will display the Input Entry page, Figure 3.5.1.1-1.

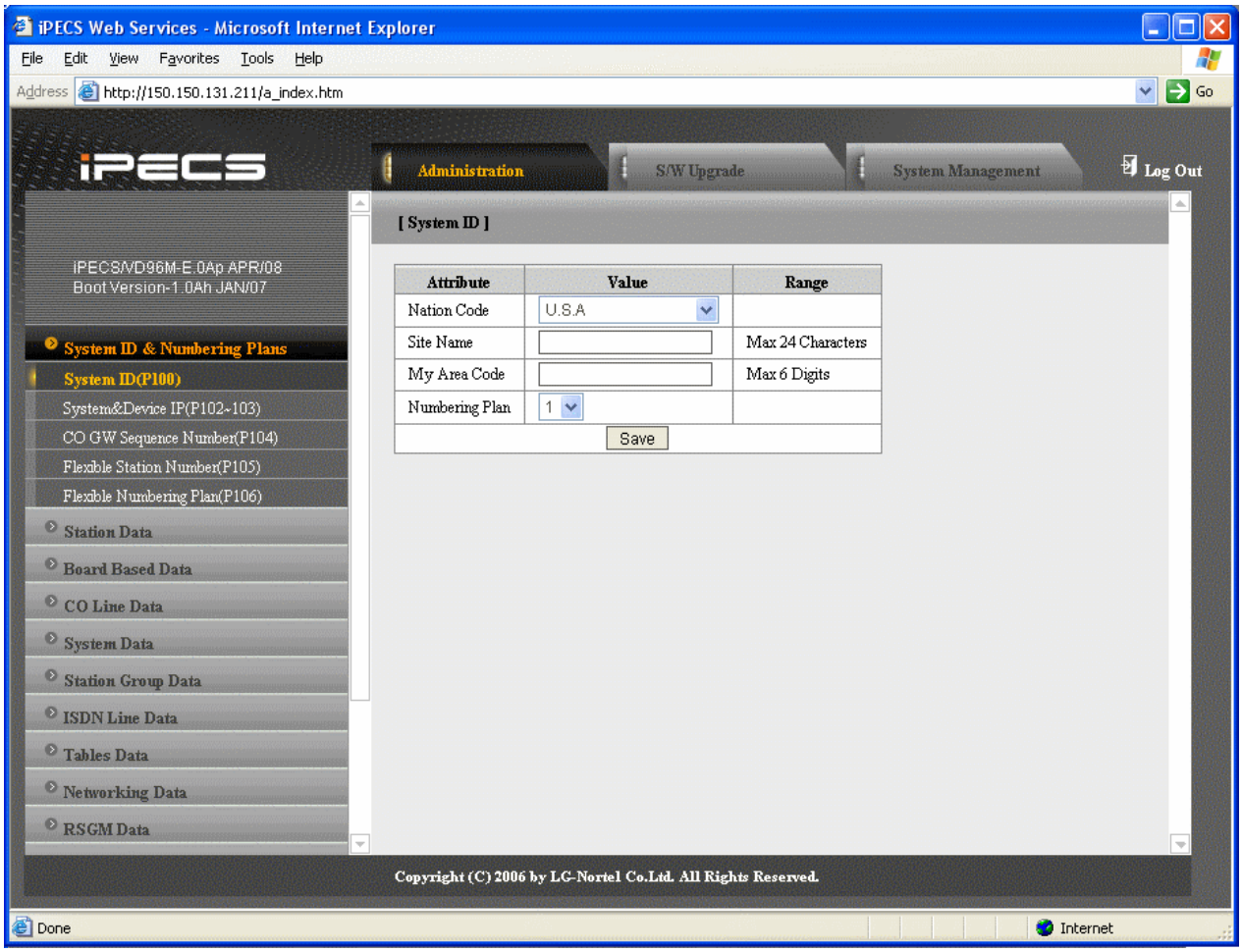


Figure 3.5.1.1-1 System ID

Under System ID, the country is identified using the international dial codes (Nation Code). A twenty-three (23) character Site Name and the local My Area Code maybe defined. This information is used to set gain, frequencies and other system characteristics specific to the country and regional regulatory requirements. The Site Name is primarily useful for the installer/programmer as a reference to customer.

In addition, the system can be programmed to select one of eight (8) base Flexible Number Plans, refer to Appendix B. Individual items from the selected base Numbering Plan can be changed under Flexible Numbering Plan in section 3.5.1.6.

3.5.1.2 Device Port Num Change

Selecting Device Port Num Change (101) will display the input entry page, Figure 3.5.1.33-1.

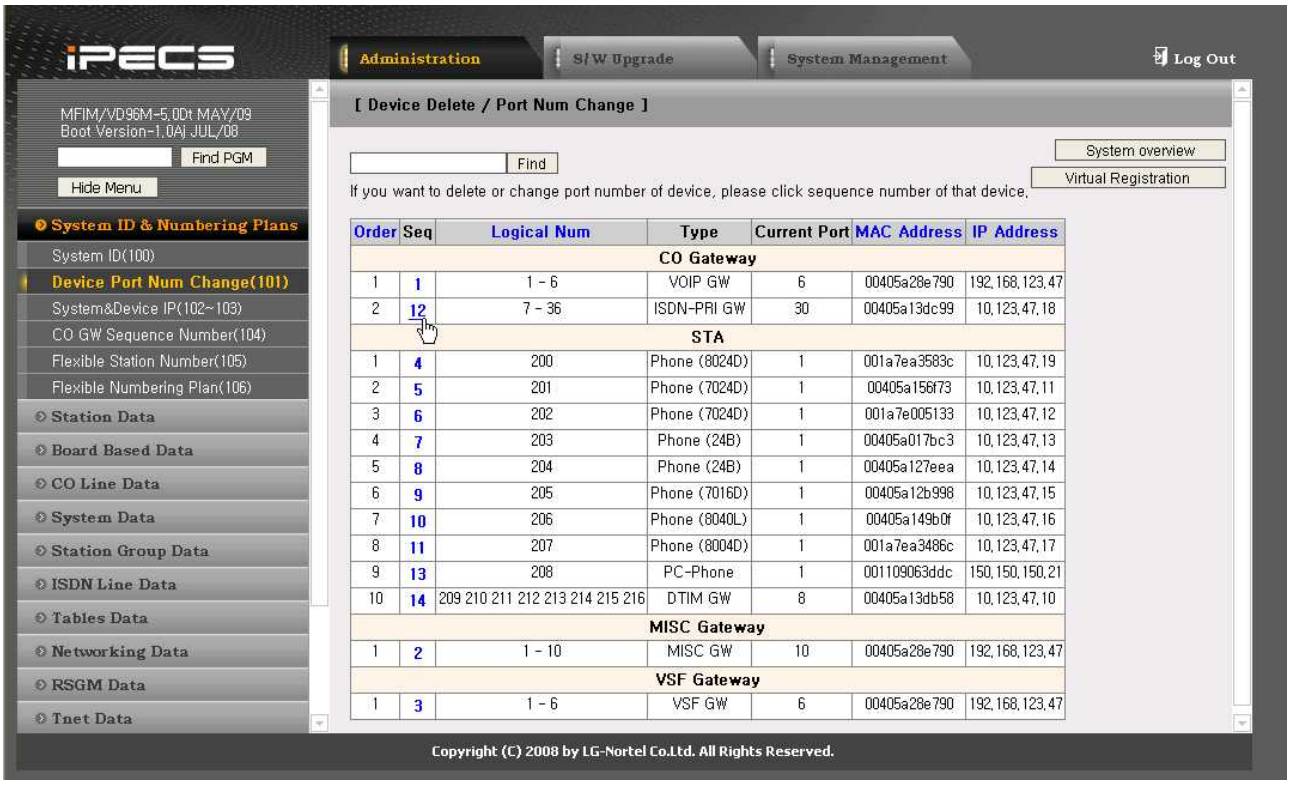

iPECS
Administration
S/W Upgrade
System Management
Log Out
MFIM/VD96M-5.0Dt MAY/09
Boot Version-1.0Aj JUL/08
Find PGM
Hide Menu
System ID & Numbering Plans
System ID(100)
Device Port Num Change(101)
System&Device IP(102~103)
CO GW Sequence Number(104)
Flexible Station Number(105)
Flexible Numbering Plan(106)
Station Data
Board Based Data
CO Line Data
System Data
Station Group Data
ISDN Line Data
Tables Data
Networking Data
RSGM Data
Tnet Data
[Device Delete / Port Num Change]
Find
System overview
Virtual Registration
If you want to delete or change port number of device, please click sequence number of that device.
Order Seq Logical Num Type Current Port MAC Address IP Address
CO Gateway
1 1 1 - 6 VOIP GW 6 00405a28e790 192,168,123,47
2 12 7 - 36 ISDN-PRI GW 30 00405a13dc99 10,123,47,18
STA
1 4 200 Phone (8024D) 1 001a7ea3583c 10,123,47,19
2 5 201 Phone (7024D) 1 00405a156f73 10,123,47,11
3 6 202 Phone (7024D) 1 001a7e005133 10,123,47,12
4 7 203 Phone (24B) 1 00405a017bc3 10,123,47,13
5 8 204 Phone (24B) 1 00405a127eea 10,123,47,14
6 9 205 Phone (7016D) 1 00405a12b998 10,123,47,15
7 10 206 Phone (8040L) 1 00405a149b0f 10,123,47,16
8 11 207 Phone (8004D) 1 001a7ea3486c 10,123,47,17
9 13 208 PC-Phone 1 001109063ddc 150,150,150,21
10 14 209 210 211 212 213 214 215 216 DTIM GW 8 00405a13db58 10,123,47,10
MISC Gateway
1 2 1 - 10 MISC GW 10 00405a28e790 192,168,123,47
VSF Gateway
1 3 1 - 6 VSF GW 6 00405a28e790 192,168,123,47
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Figure 3.5.1.2-1 Device Port Num Change

- Device Delete / Port Number Change

The system support changing port number or deleting device. To change port number or delete device, click sequence number of that device. Then a user can see pop-up window as below Figure 3.5.1.2-2 “Device Port Number Change Pop-up”. In this window, a user can change Device ID, Mac address, IP address and port number of that device. Also a user can delete that device by checking “Device Delete” check box. System would be restarted when a user change port number or delete device. After system restarting, whole logical number of that device type would be re-ordered. 'Admin DB Move' option is used whether admin database move or not when you delete or change port number of device. The default value of 'Admin DB Move' option is checked. If you uncheck 'Admin DB Copy' option, then all admin databases would be same with before. If you check 'Admin DB Copy' option, then all admin databases would be moved automatically according to re-ordered logical number when you delete or change port number of CO G/W.

	Re-order logical number	Admin DB move according to the re-ordered logical number
Check 'Admin DB Move' option	O	O
Uncheck 'Admin DB Move' option	O	X (There is no change in 'Admin DB')

But in case of STA G/W or phone, you have to program again below admin list even if you checked 'Admin DB Move' option.
If below admin have station number in their attributes, then you have to program again.
- Flex buttons (PGM115)
- Station Call Forward & Preset Call Forward (PGM120)
- CO/IP Ring Assignment (PGM144)
- ICLID Ring Assignment (PGM204)
- Flexible DID table (PGM231)
- Station Group Member Assignment (PGM190)
- and so on

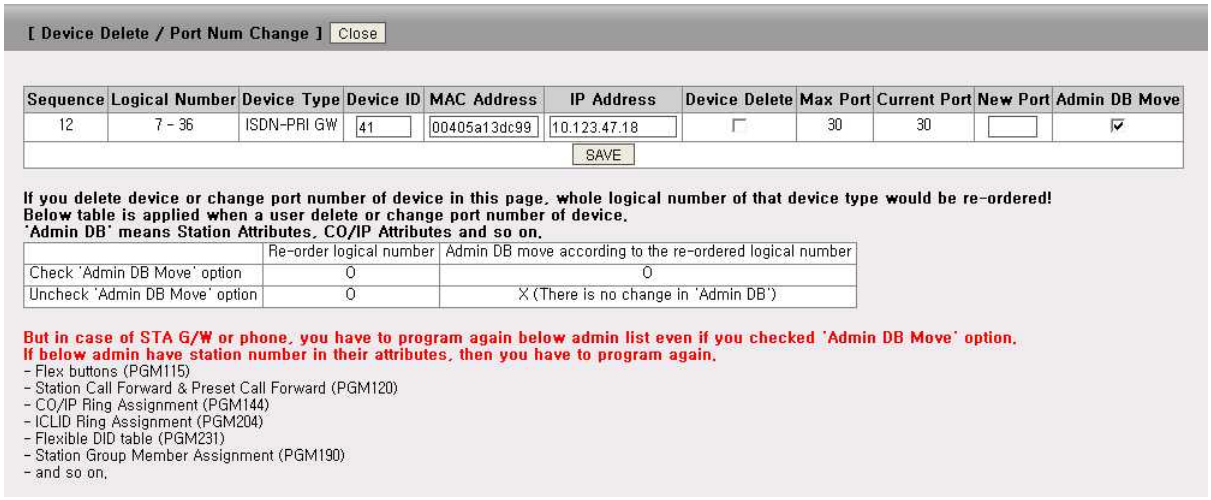

[Device Delete / Port Num Change]
Close
Sequence
Logical Number
Device Type
Device ID
MAC Address
IP Address
Device Delete
Max Port
Current Port
New Port
Admin DB Move
12
7 - 36
ISDN-PRI GW
41
00405a13dc99
10.123.47.18
30
30
SAVE
If you delete device or change port number of device in this page, whole logical number of that device type would be re-ordered!
Below table is applied when a user delete or change port number of device.
'Admin DB' means Station Attributes, CO/IP Attributes and so on.
Re-order logical number
Admin DB move according to the re-ordered logical number
Check 'Admin DB Move' option
O
O
Uncheck 'Admin DB Move' option
O
X (There is no change in 'Admin DB')
But in case of STA G/W or phone, you have to program again below admin list even if you checked 'Admin DB Move' option.
If below admin have station number in their attributes, then you have to program again.
- Flex buttons (PGM115)
- Station Call Forward & Preset Call Forward (PGM120)
- CO/IP Ring Assignment (PGM144)
- ICLID Ring Assignment (PGM204)
- Flexible DID table (PGM231)
- Station Group Member Assignment (PGM190)
- and so on.

Figure 3.5.1.2-2 Device Port Number Change Pop-up

Table 3.5.1.2-1 Device Port Number Change

ATTRIBUTE	DESCRIPTION	DEFAULT
Sequence	Display sequence number of device.	
Logical Number	Display logical number of device	
Device Type	Display the device type.	
Device ID	Change the device type.	
Mac Address	Change the Mac address of device.	None
IP Address	Change device's IP address in IP v4 format.	10.10.10.10~254
Device Delete	Delete the device.	
Max Port	Display maximum port number of device.	
Current Port	Display current registered port number of device.	
New Port	Set port number to be registered after system restarting.	
Admin DB Move	If this option is checked, Admin DB would be moved according to the re-ordered logical number	checked

- Virtual Registration

The system support virtual device registration. To register device in virtual, click "Virtual Registration" button in Figure 3.5.1.2-1 "Device Port Num Change" page. Then a user can see

pop-up window as Figure 3.5.1.2-3 “Virtual Registration Table” window. In this window, a user enters Mac address, device type, and port number to be registered of device. If a user wants to use virtual MAC address instead of real MAC address, then please check the check box in front of MAC address input box. ‘Maximum port’ would be displayed when a user select device type. But it is a default maximum port number of that device, so a user can reduce port number by changing value in ‘Maximum Port’ input box.

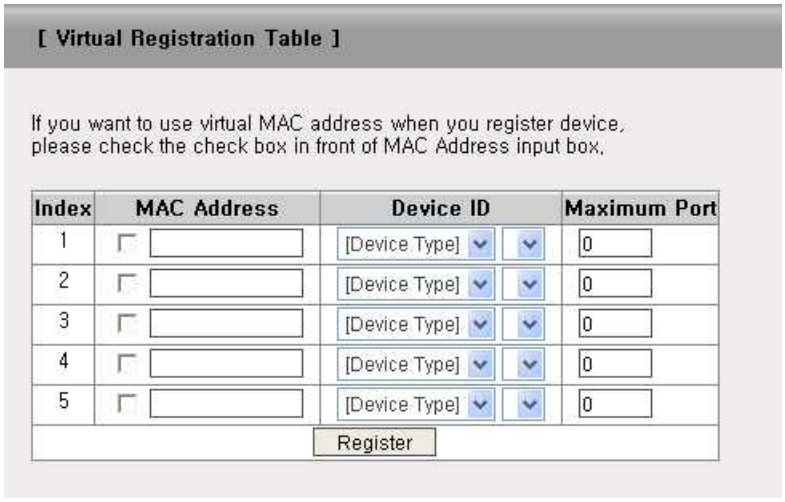
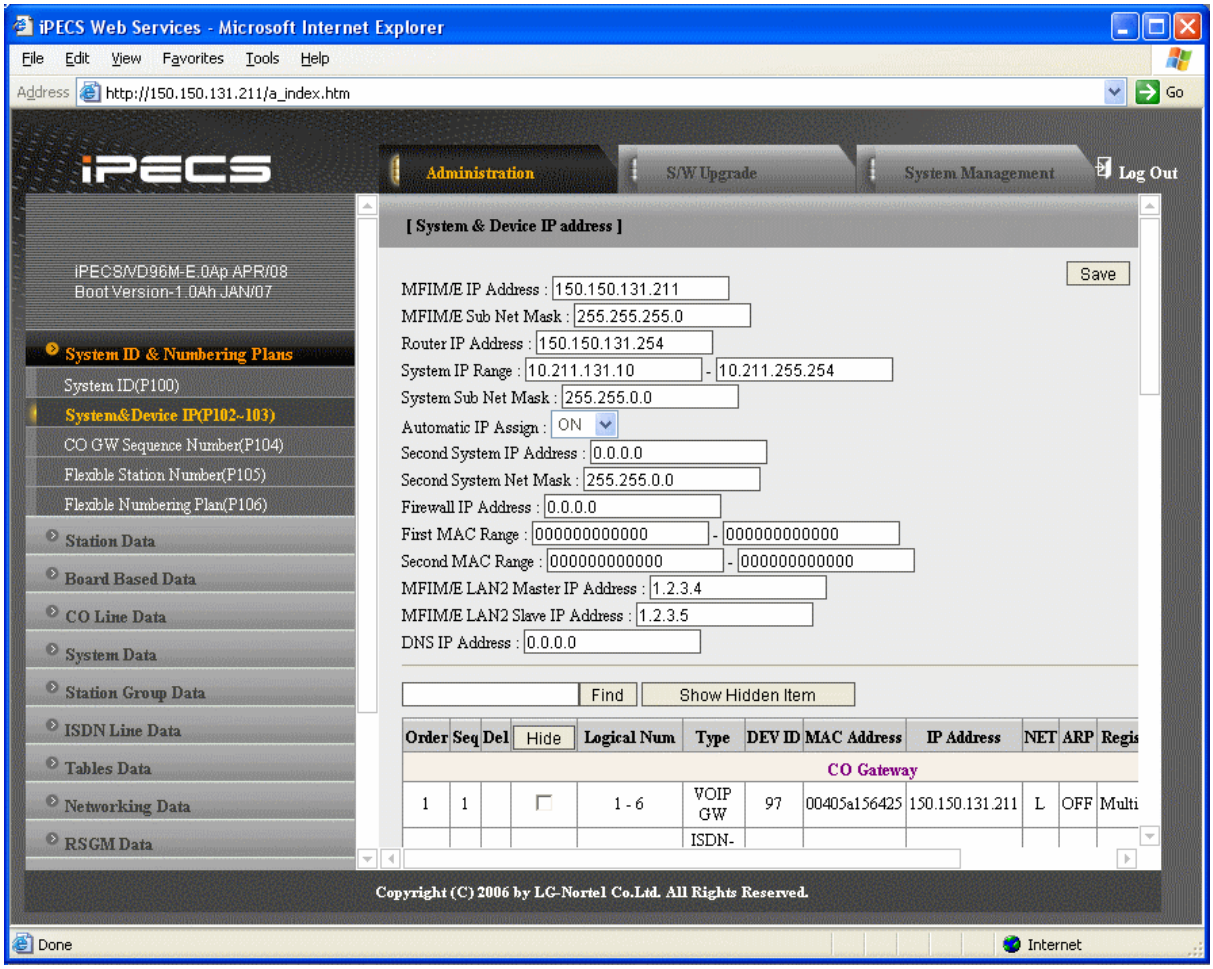


Figure 3.5.1.2-3 Virtual Registration Table window

3.5.1.3 System & Device IP Address Plan

Re: **PGM CODE** 102 & 103

Selecting System & Device IP Address Plan will display the input entry page, Figure 3.5.1.33-1.


iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
Go
iPECS
Administration
S/W Upgrade
System Management
Log Out
IPECS/VD96M-E.0Ap APR/08
Boot Version-1.0Ah JAN/07
System ID & Numbering Plans
System ID(P100)
System&Device IP(P102~103)
CO GW Sequence Number(P104)
Flexible Station Number(P105)
Flexible Numbering Plan(P106)
Station Data
Board Based Data
CO Line Data
System Data
Station Group Data
ISDN Line Data
Tables Data
Networking Data
RSGM Data
[System & Device IP address]
Save
MFIM/E IP Address : 150.150.131.211
MFIM/E Sub Net Mask : 255.255.255.0
Router IP Address : 150.150.131.254
System IP Range : 10.211.131.10 - 10.211.255.254
System Sub Net Mask : 255.255.0.0
Automatic IP Assign : ON
Second System IP Address : 0.0.0.0
Second System Net Mask : 255.255.0.0
Firewall IP Address : 0.0.0.0
First MAC Range : 000000000000 - 000000000000
Second MAC Range : 000000000000 - 000000000000
MFIM/E LAN2 Master IP Address : 1.2.3.4
MFIM/E LAN2 Slave IP Address : 1.2.3.5
DNS IP Address : 0.0.0.0
Find
Show Hidden Item
Order Seq Del Hide Logical Num Type DEV ID MAC Address IP Address NET ARP Regis
CO Gateway
1 1 1 - 6 VOIP GW 97 00405a156425 150.150.131.211 L OFF Multi
ISDN-
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Done
Internet

Figure 3.5.1.33-1 System & Device IP Address Plan

System IP Address

The System IP Address Plan sets several IP addresses including the MFIM IP address required for external VoIP calls, the IP address for the router, and the system's internal private IP address Plan. Note that the MFIM and Router addresses must be routable IP addresses for access to an external VoIP network, remote access by an iPECS Phone or RSGM and remote Web access. When used, the VOIM (Voice over IP gateway Module) must also have a routable IP address for access to/from an external VoIP network and a remote iPECS device.

When Automatic IP Assign is enabled, the system will assign IP addresses to each local gateway Module and terminal using the System IP address range defined. These addresses are used for communications between the system and other Modules and terminals.

The MFIM may be installed on a LAN segmented by two separate private IP address schemes. With this segmenting technique, the MFIM normally treats the segmented gateway Modules or

Terminals as remote devices, using valuable WAN bandwidth. By assigning the default gateway of the segmented devices as the “Second Sys IP address”, the MFIM communicates directly to the devices through the default gateway.

iPECS can be installed behind a NAPT server, if the NAPT server provides fixed address translation and port forwarding to the system. In this case, the system will employ the “Firewall IP address” as the fixed IP address for communication with remote devices. This address must be assigned as the MFIM address in the remote device.

In some situations, specifically when multiple iPECS systems are installed on the same LAN, it may be advantageous to register devices employing MAC addresses in place of the “plug & play” mechanism using the MFIM registration DIP-switch. The system allows a range of MAC addresses to be entered allowing devices with a MAC address in the range to register with the iPECS regardless of the Registration DIP-switch position. For convenience, two ranges can be defined in the database. Once a device has been registered, the database entries are eliminated and the device will remain registered unless deleted from the device list.

Device IP Address

As gateway Modules and terminals are registered to the iPECS, a gateway number is assigned, which indicates the order of registration. Also, based on the type of device (CO/IP gateway, Terminal, MISC/VSF gateway) the system assigns a logical Sequence Number. Thus, Sequence Numbers for CO/VOIM gateway Modules, Terminals and the MISC/VSF gateway are independently assigned based on the type of gateway. These Sequence Numbers are employed to provide a relationship between the physical MAC address and the logical port numbers of the device.

For the RSGM, the CO Line port is assigned a CO/IP gateway Sequence Number and the iPECS Phone and SLT port are assigned Terminal Sequence Numbers.

The system may assign a default private IP address to each Sequence Number. If desired, this program may be used to modify the assigned IP address for each gateway Module and iPECS Phone.

iPECS devices may be assigned as part of a Centralized Control TNET (Transparent Network). TNET characteristics are discussed in section TNET (Central Control Networking) Data. The NET column here indicates if a device is enabled for TNET.

Each gateway Module and terminal can be assigned for “Direct Send”. With Direct Send enabled, the system will employ the Ethernet MAC address of the device to send iPECS protocol messages to the device. This reduces the overall LAN traffic by eliminating the need for IP address headers in the messages.

The system normally employs IP multi-cast protocol to respond to a registration request from a gateway Module or terminal. When the device is separated from the system by a router, the system must use the IP uni-cast protocol. This is established by the “Local Device” assignment.

When disabled (Off), the system will send an IP uni-cast message to the device in response to a registration request.

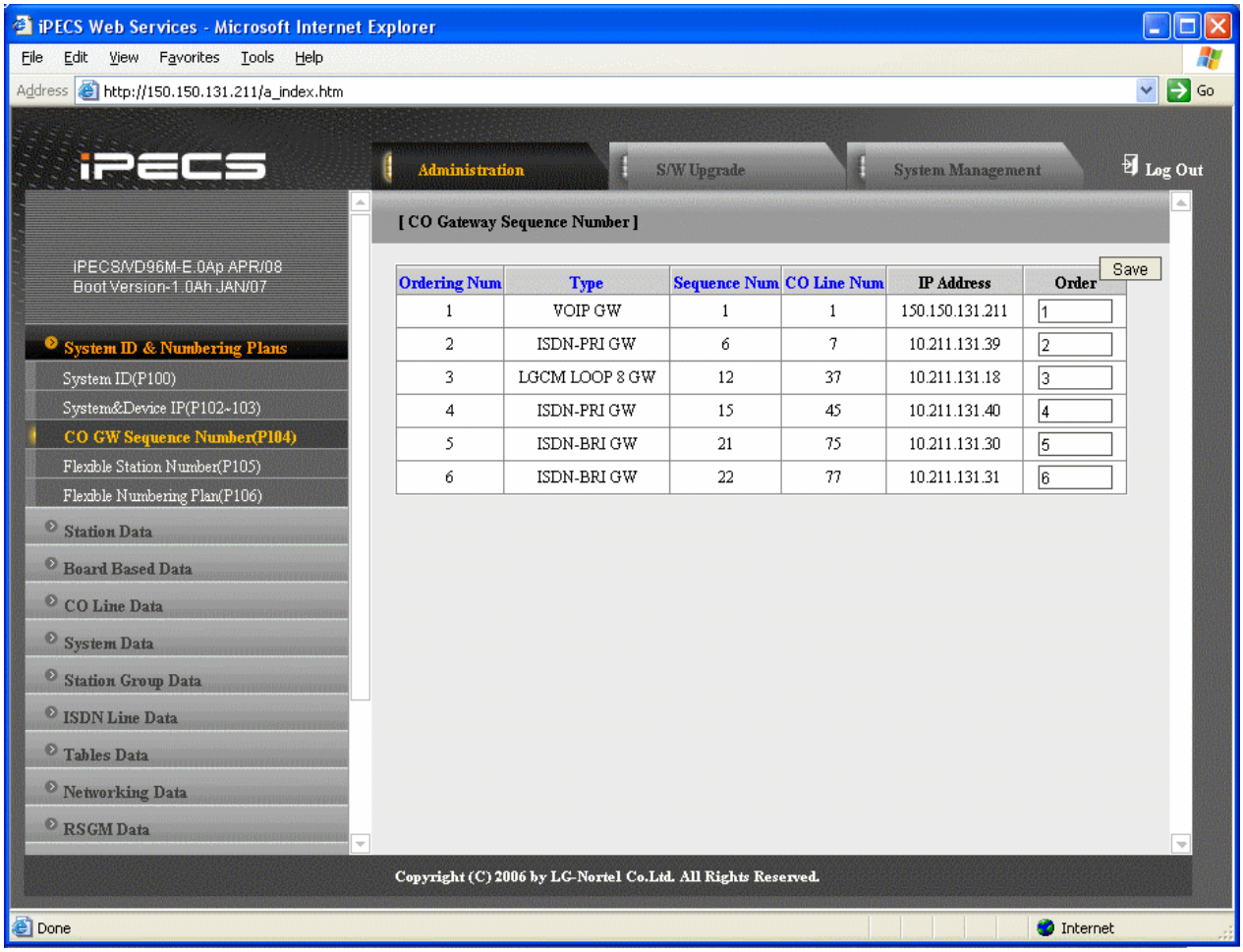
Table 3.5.1.33-1 SYSTEM IP ADDRESS PLAN

ATTRIBUTE	DESCRIPTION	DEFAULT
MFIM IP Address	Public IP Address required for remote user and external VoIP network access. IPv4 format.	10.10.10.2
MFIM Subnet Mask		255.255.255.0
Router IP Address	IP Address of router for external network (WAN/IP) access. Required for shared voice and data LAN, external VoIP and remote Web access.	10.10.10.1
System IP Range	Range for private IP addresses of Modules/Terminals.	
System Subnet Mask		255.255.255.0
Automatic IP Assign	The system automatically assigns IP addresses to modules and terminals (On) or, when OFF, IP addresses are assigned manually in Device IP Address Table.	ON
Second System IP Address	When devices have different address scheme on the same LAN, enter the MFIM IP address for the second LAN.	0.0.0.0
Second System Net Mask	Net mask of the second private IP addresses	255.255.255.0
Firewall IP Address	When the system is installed behind a NAPT server, the fixed IP Address provided by the NAPT server must be assigned here. Also, use this IP address to identify the MFIM in remote devices.	0.0.0.0
First MAC Range	MAC Address Range to register a device regardless of the 3rd DIP-switch.	00.00.00.00.00.00
Second MAC Range	MAC Address Range to register a device regardless of the 3rd DIP-switch.	00.00.00.00.00.00
MFIM/E LAN2 Master IP Address	When redundancy is to be supported for the MFIM, the master and slave are connected via the LAN2 port. All 8 wires in the cable must be terminated to the RJ45. The master IP address can be assigned here. When the direct connection mode is employed for redundancy, the field is ignored.	1.2.3.4
MFIM/E LAN2 Slave IP Address	When redundancy is supported for the MFIM, the master and slave are connected via the LAN2 port. All 8 wires in the cable must be terminated to the RJ45. The slave IP address can be assigned here. When the direct connection mode is employed for redundancy, the field is ignored.	1.2.3.5
DNS IP Address	IP Address of Domain Name Server, which iPECS will use to resolve urls to an IP address. The DNS provides the resolution after receiving the name from iPECS.	0.0.0.0

3.5.1.4 CO Gateway Sequence Number

Re: **PGM CODE** 104

Selecting CO Gateway Sequence Number will display the input entry page, Figure 4-1. Selecting the blue colored text in the Table header will sort the table based on the selected column.


iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
Go
iPECS
Administration
S/W Upgrade
System Management
Log Out
iPECS/VD96M-E.0Ap APR/08
Boot Version-1.0Ah JAN/07
System ID & Numbering Plans
System ID(P100)
System&Device IP(P102~103)
CO GW Sequence Number(P104)
Flexible Station Number(P105)
Flexible Numbering Plan(P106)
Station Data
Board Based Data
CO Line Data
System Data
Station Group Data
ISDN Line Data
Tables Data
Networking Data
RSGM Data
[CO Gateway Sequence Number]
Save
Ordering Num | Type | Sequence Num | CO Line Num | IP Address | Order
1 | VOIP GW | 1 | 1 | 150.150.131.211 | 1
2 | ISDN-PRI GW | 6 | 7 | 10.211.131.39 | 2
3 | LGCM LOOP 8 GW | 12 | 37 | 10.211.131.18 | 3
4 | ISDN-PRI GW | 15 | 45 | 10.211.131.40 | 4
5 | ISDN-BRI GW | 21 | 75 | 10.211.131.30 | 5
6 | ISDN-BRI GW | 22 | 77 | 10.211.131.31 | 6
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Done
Internet

Figure 4-1 CO Gateway Sequence Number

Each CO/IP gateway Module is assigned a Sequence Number for each MAC address. The LGCM4, DID and BRIM have two (2) MAC addresses and thus they are assigned two Sequence Numbers. Other gateway Modules and the system VOIP channels all have a single MAC address and thus a single Sequence Number is assigned. The system uses the Sequence Number to assign logical (software) port numbers. This Sequence Number relates the hardware and software port numbers for each gateway Module using the Modules MAC addresses. When employing a Main Cabinet, it may be desirable to have the logical and physical (RJ21X appearances) port numbers in agreement. This may be accomplished by assigning “Ordering Num” to match the appropriate cabinet slot number. This may also be accomplished by proper installation sequence of the gateway modules. Table 3.5.1.4-1 provides the analog CO Line and ISDN Line port numbers based on the physical RJ-21X terminations on the Main Cabinet back plane.

Table 3.5.1.4-1 RJ-21X TERMINATIONS

SLOT	CO LINE PORT
1	1 ~ 4
2	5 ~ 8
3	9 ~ 12
4	13 ~ 16
5	17 ~ 20
6	21~ 24
7	25 ~ 28
8	29 ~ 32

3.5.1.5 Flexible Station Numbering Plan

Re: **PGM CODE** 105

Selecting Flexible Station Number will return the data entry page, Figure 3.5.1.55-1. This page permits changes in the Station Numbering Plan using one of three methods:

Not Use Range Input: use to change an individual station number.

Order Range: use to change the station numbers associated with a range of "Order Numbers" using the "Start Station Number" as the first station number to assign in the range. The station number is incremented by one over the range of Order numbers.

Station Range: use to change station numbers over a range of stations using the "Start Station Number" as the first station number of the range. The station number is incremented by one for each successive station in the range.

Selecting a Station Order Range, blue text in the table header, will display the Station Numbering Plan information for the selected Order Range.

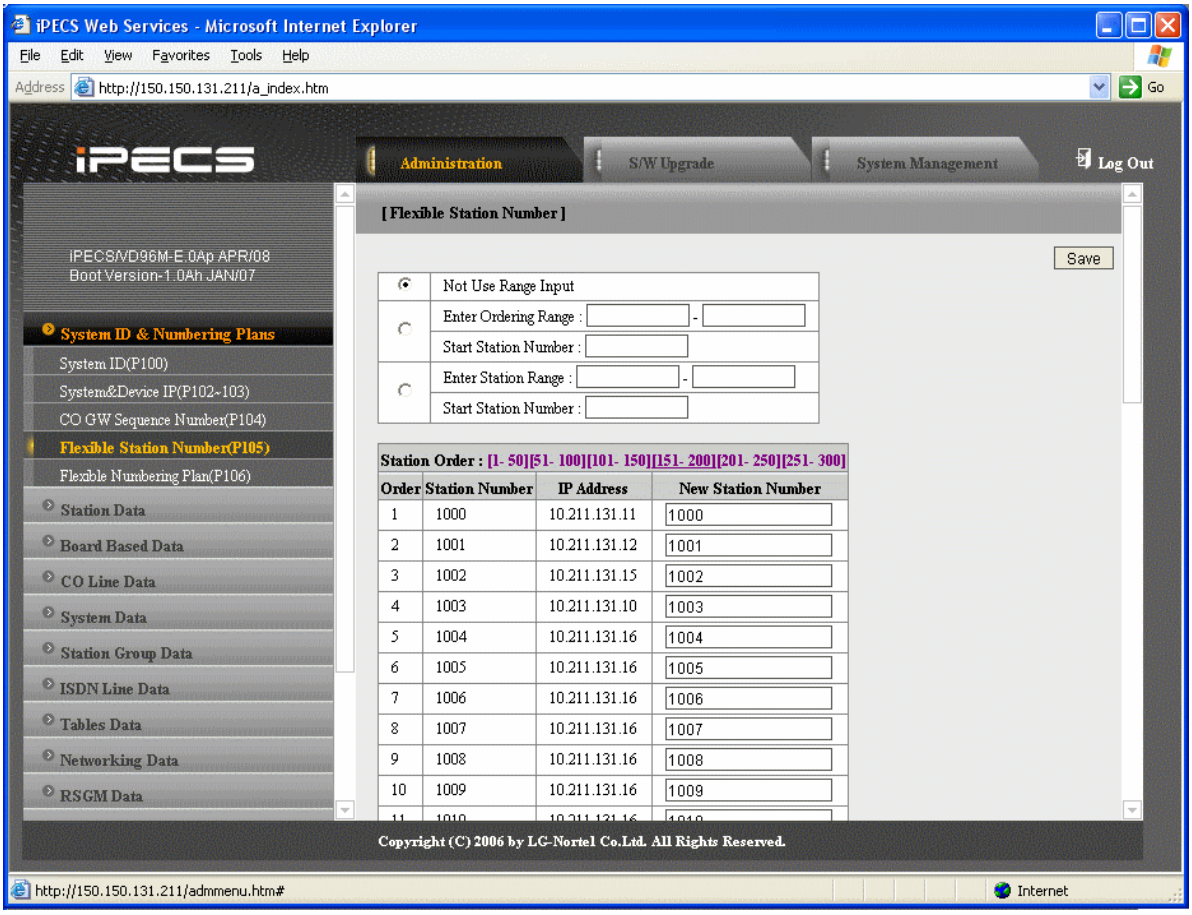


Figure 3.5.1.55-1 Flexible Station Number

As with gateway Modules, each iPECS Phone and SLT is assigned a logical sequence number, shown as the "Order" number on the Web page, during the registration process. The station order number is incremented from 1 as each terminal device is registered. At registration, station numbers increment sequentially with the Order number and are assigned starting at station 100. The Station Numbering Plan allows the station numbers to be two (2) to four (4) digits in length.

3.5.1.6 Flexible Numbering Plan

Re: **PGM CODES** 106 ~ 109

Selecting Flexible Numbering Plan will display the input entry page, Figure 3.5.1.66-1. Selecting the blue colored text in the Table header will sort the table based on the selected column.

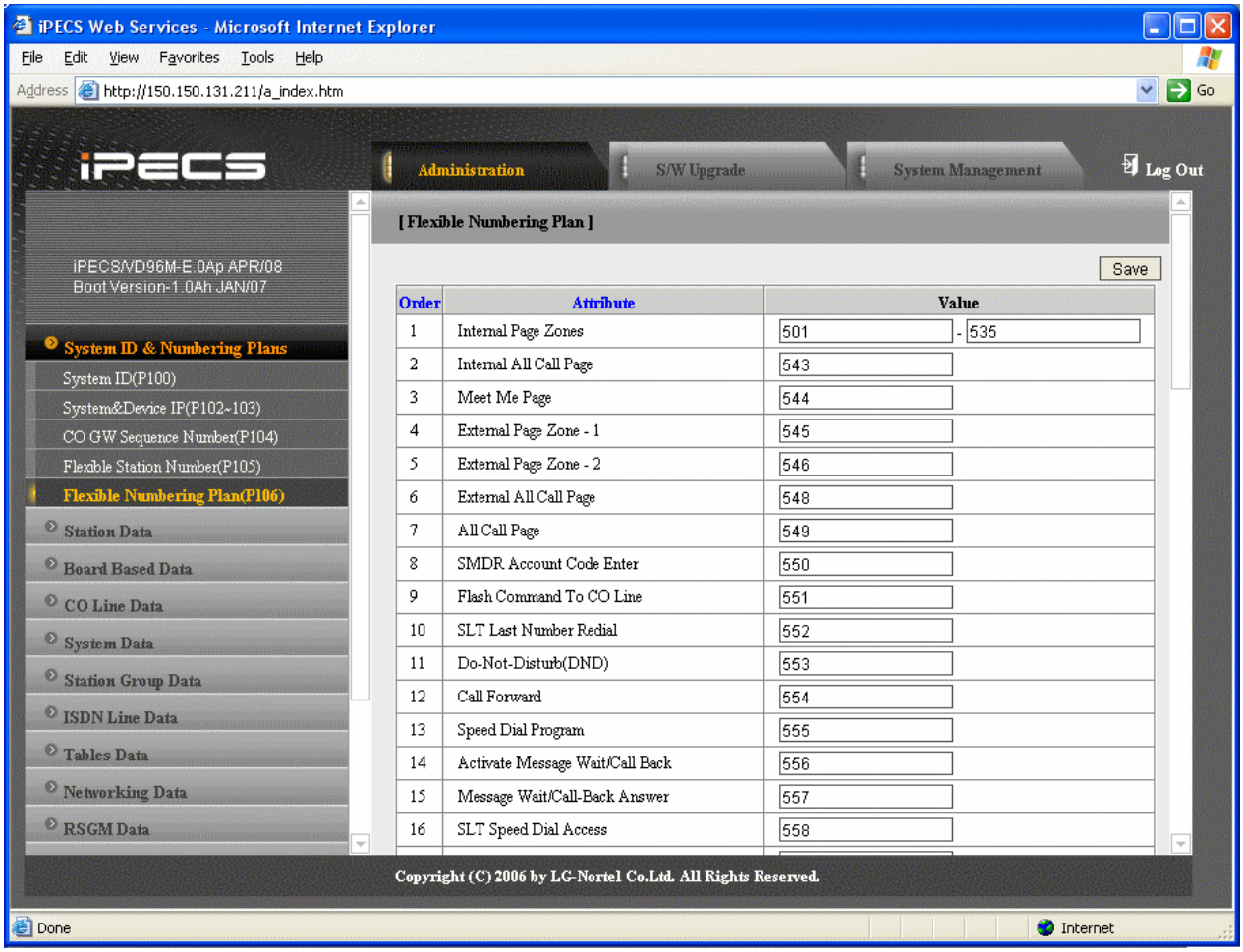


Figure 3.5.1.66-1 Flexible Number Plan

Feature dial codes for the system can be assigned using the system's Flexible Number Plan. Feature codes should be one (1) to four (4) digits in length and must not conflict. For example, Feature codes 53 and 536 represent a conflict. The system will not update the database until correct data is entered. Table 3.5.1.66-1 provides a brief description for each feature and the default codes as they appear in base Numbering Plan 1. The default values for other numbering plans, which may be selected under System Id section 3.5.1.1, are provided in Appendix B.

Table 3.5.1.66-1 FLEXIBLE NUMBERING PLAN CODES

ATTRIBUTE	DESCRIPTION	DEFAULT				
		iPECS-Micro	iPECS-50 & MFIM100	MFIM300	MFIM600	MFIM1200
Internal Page Zones	Internal Page Zone access dial codes	501~510	501~510	501~535	501~535	301~400
Internal All Call Page	Internal All Call Page access dial code	543	543	543	543	543
Meet Me Page	Meet-Me-Page answer dial code	544	544	544	544	544
External Page Zone – 1	External Page Zone 1 access dial code	n/a	545	545	545	545
External Page Zone – 2	External Page Zone 2 access dial code. Not available in iPECS-50	n/a	546	546	546	546
External All Call Page	External All Call Page access dial code	n/a	548	548	548	548
All Call Page	All Call Page access dial code	549	549	549	549	549
SMDR Account Code Enter	Dial code to signify the start of an SMDR Account Code	550	550	550	550	550
Flash Command To CO Line	Dial code to generate a Flash on the active CO Line	551	551	551	551	551
SLT Last Number Redial	SLT Last number redial feature access dial code	552	552	552	552	552
Do-Not-Disturb (DND)	Dial code to activate Do-Not-Disturb	553	553	553	553	553
Call Forward	Code to activate Call Forward.	554	554	554	554	554
Speed Dial Program	SLT Speed Dial programming access code	555	555	555	555	555
Activate Message Wait/Call Back	Code to activate Message Wait/Call Back	556	556	556	556	556
Message Wait/Call-Back Answer	Code to return Message Wait/Call Back	557	557	557	557	557
SLT Speed Dial Access	SLT Speed Dial access code:	558	558	558	558	558
DND/FWD Cancel	Code to cancel DND/FWD/MSG Wait	559	559	559	559	559
SLT CO System Hold	Code to place a CO Line call on System Hold	560	560	560	560	560
SLT Program Mode Access	SLT user program access code	561	561	561	561	561
Attendant Unavailable	Code to make attendant “unavailable”	562	562	562	562	562
AME Feature	Dial code to assign an Answering Machine Emulation Flex button	564	564	564	564	564
Alarm Reset	Code to reset Alarm contacts	565	565	565	565	565
Group Call Pick-Up	Group Call Pick-up dial code	566	566	566	566	566
Universal Night Answer	Universal Night Answer dial code	567	567	567	567	567
Account Code With Bin	Dial code for entering an Account Code	568	568	568	568	568
Walking COS	Dial code to activate Walking Class-of-Service	569	569	569	569	569

ATTRIBUTE	DESCRIPTION	DEFAULT				
		iPECS-Micro	iPECS-50 & MFIM100	MFIM300	MFIM600	MFIM1200
ACD Agent ON/OFF Duty	Code to toggle ACD Supervisor ON and OFF duty	571	571	571	571	571
ACD Supervisor Login	Supervisor log-in dial code	572	572	572	572	572
ACD Supervisor Logout	Supervisor log-out dial code	573	573	573	573	573
ACD Help Code	Agent & Supervisor dial code for Supervisor help	574	574	574	574	574
ACD Call In Queue Display	Dial code to display calls in queue	575	575	575	575	575
ACD Supervisor Status	Dial code to display group status	576	576	576	576	576
ACD Supervisor Monitor	Dial code to activate Supervisor monitor	577	577	577	577	577
ACD Reroute Queued Call Answer	Code to reroute call after answer	578	578	578	578	578
ACD Reroute Queued Call No Answer	Code to reroute call prior to answer	579	579	579	579	579
Camp-On Answer	Dial code to answer a Camped On call	600	600	600	600	600
Call Park Locations	Dial code to place/retrieve a call in a system Park Orbit	601~610	601~610	601~619	#601~#699	#601~#699
Station Group Pilot Number	Station group pilot number	620~631	620~659	620~667	620~667	401~500
Station User VSF Features Access	VSF feature access code	66	66	*66	*66	*66
Call Coverage Ring	Code for Call Coverage button	67	67	67	67	76
Direct Call Pick-Up	Dial code to activate Directed Call Pick-up	7	7	7	7	*77
Access CO Group	Dial code to access a CO Line from a group	801~820	801~820	801~872	801~872	n/a
Access Individual CO/IP	Dial code to access a specific CO Line/IP Channel	8801 ~ 8805	8801 ~ 8842	88001 ~ 88200	88001 ~ 88400	88001 ~ 88600
Access Held CO/IP	Dial code to access last CO Line or IP channel from Hold	8*	8*	8*	8*	8*
Access Held Individual CO/IP	Dial code to access a specific CO Line/IP channel from Hold	8#	8#	8#	8#	8#
Access CO In First CO Group	Dial code to access the 1st available CO Line in any accessible group	9	9	9	9	9
Attendant Call	Dial code to call Main Attendant	0	0	0	0	0
VM MSG Wait Enable	Dial code for external Voice mail to activate Message Wait indication	*8	*8	*8	*8	*8
VM MSG Wait Cancel	Dial code for external Voice Mail to deactivate Message Wait indication	*9	*9	*9	*9	*9
Door Open 1	Dial code to activate Door 1 contact (open door 1)	n/a	#*1	#*1	#*1	#*1
Door Open 2	Dial code to activate Door 2 contact (open door 2). Not available in iPECS-50	n/a	#*2	#*2	#*2	#*2

ATTRIBUTE	DESCRIPTION	DEFAULT				
		iPECS-Micro	iPECS-50 & MFIM100	MFIM300	MFIM600	MFIM1200
Door Open 3	Dial code to activate Door 3 contact (open door 3)	n/a	n/a	#*3	#*3	#*3
Door Open 4	Dial code to activate Door 4 contact (open door 4)	n/a	n/a	#*4	#*4	#*4
MCID Request	Dial code to activate Malicious Caller Id (Except USA version)	*0	*0	*0	*0	*0
Unsupervised Conf Timer Extend Code	Dial code to extend unsupervised conference time	##	##	##	##	##
PTT Group Logon/Logoff	Push-To-Talk group login and logout dial code. The station must have a PTT button for proper operation	#0	#0	#0	#0	#0
ACD Agent Primary Login	ACD Agent Primary Login code	581	581	581	581	581
ACD Agent Primary Logout	ACD Agent Primary Logout code	582	582	582	582	582
ACD Agent Secondary Login	ACD Agent Secondary Login Code	583	583	583	583	583
ACD Agent Secondary Logout	ACD Agent Secondary Logout Code	584	584	584	584	584
ACD Agent Wrap-up Enc	ACD Agent Wrap-up end code	585	585	585	585	585
TNET CM LOGIN/OUT	In a Central Control TNET, a station can manually log in/out of the Central controlling MFIM using this code.	586	586	586	586	586
ENTER INTO CONF ROOM	Code for a station to enter a conference room.	59	59	59	59	59
ENTER INTO CONF-GROUP	Code for a station to initiate a conference group.	68	68	68	68	68
STATION ICR	Code for a station to activate ICR forward.	587	587	587	587	587
PICK UP GROUP PICK-UP	Pick Up Group Call Pick-up dial code.	588	588	588	588	588
ACCESS CO GROUP	Dial code to access a CO Line or IP channel from a CO/IP group.	n/a	n/a	n/a	n/a	589
EMERGENCY PAGE	Code for emergency page	589	589	589	589	589
REMOTE MEX CONTROL	Code to control the mobile extension settings remotely	580	580	580	580	580
Agent ON/OFF Duty In ALL GRP	Code to change the state of the Agent ON/Off duty in all hunt group	58*	58*	58*	58*	58*

3.5.2 Station Data Program

Selecting the Station Data program group returns the Station Data sub-menu displayed in Figure 3.5.2-1.

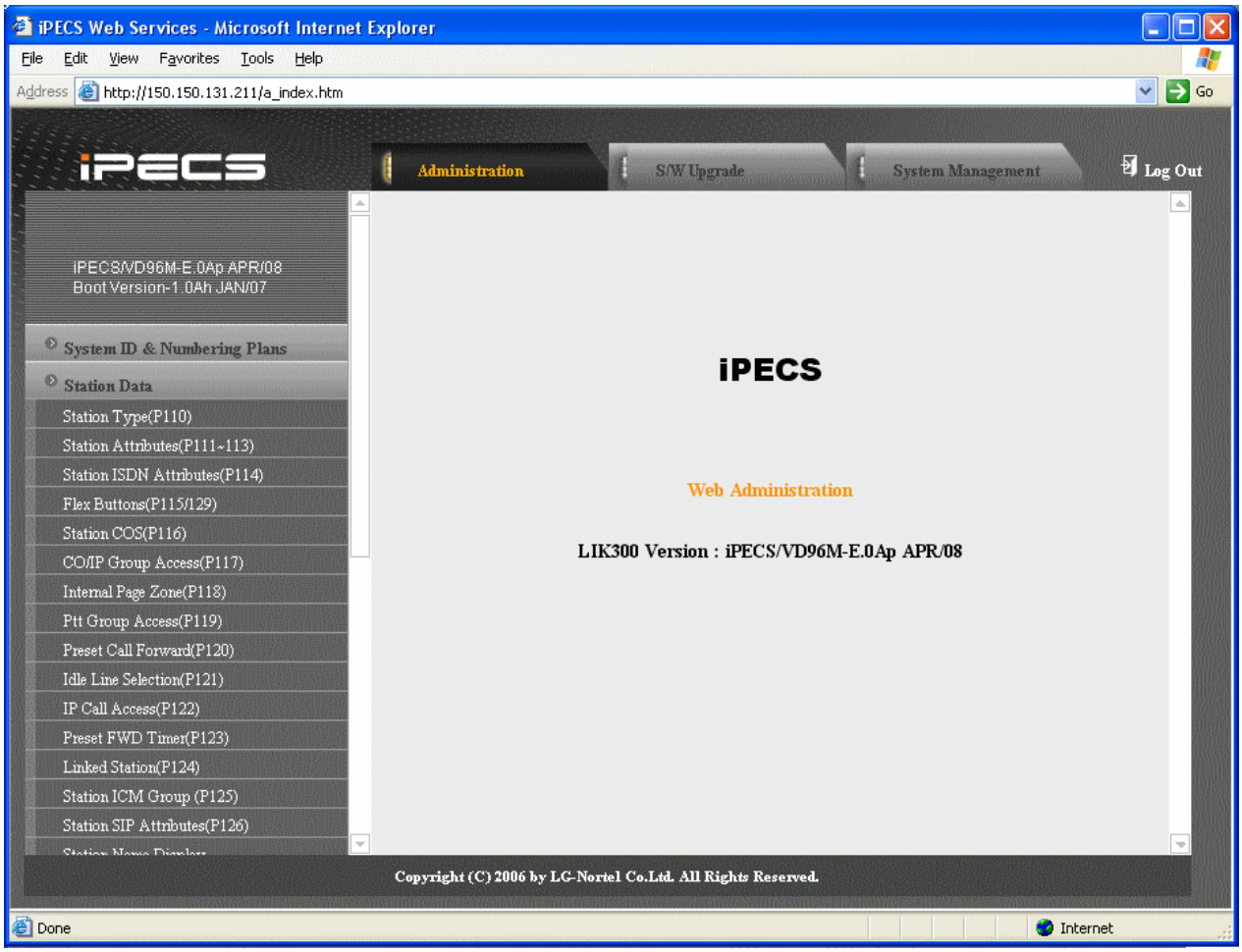


Figure 3.5.2-1 Station Data

3.5.2.1 Station Type

Re: **PGM CODE** 110

Selecting Station Type will display the Station Type data input entry page, Figure 3.5.2.1-1. Select the 'Station Order' desired shown above table the header, [1-50][51-100][101-150]… The range selected displays on screen. Selecting the blue colored text in the Table header will sort the table based on the selected column.

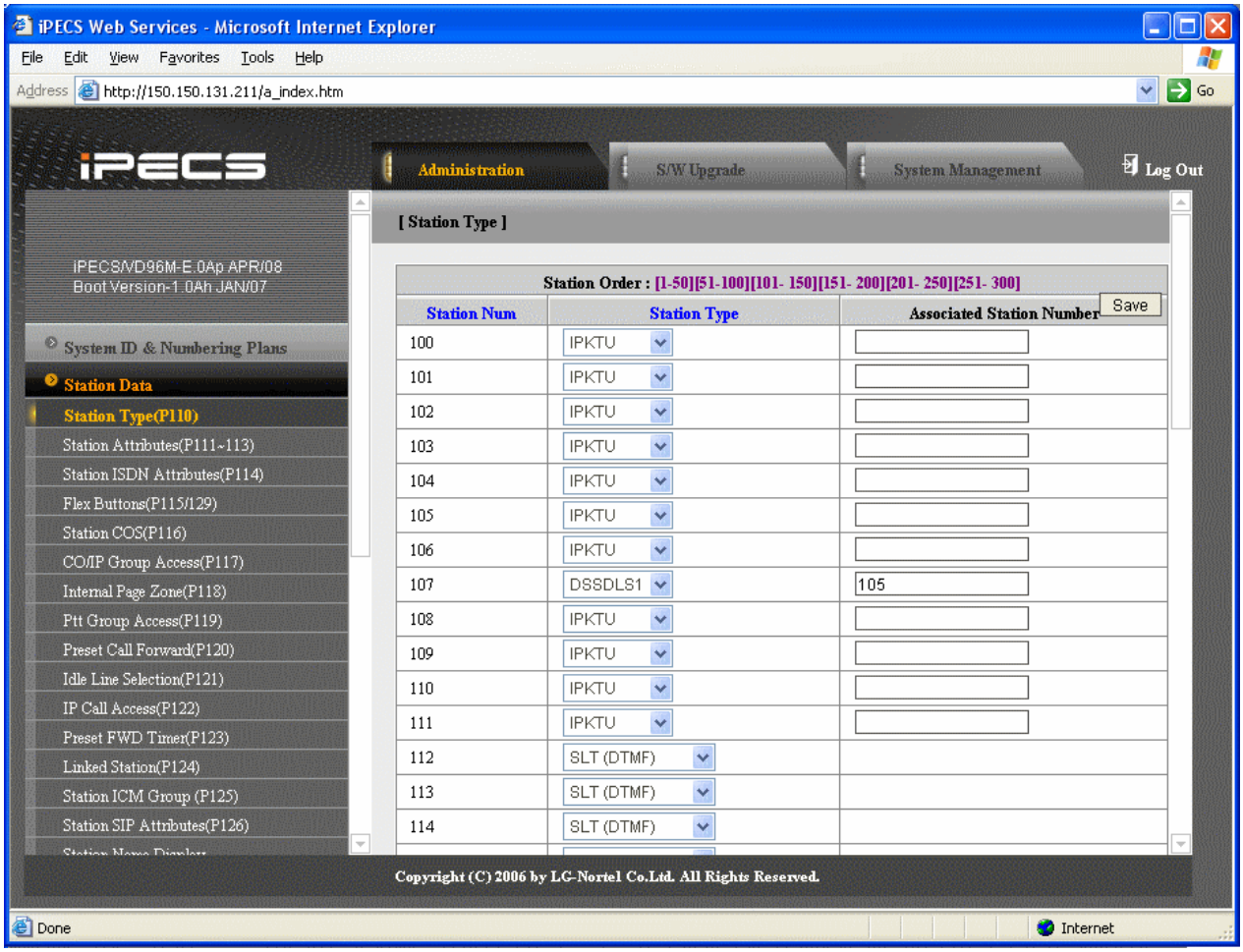


Figure 3.5.2.1-1 Station Type

Each station is assigned a type selected from the "Station Type" drop-down menu. The type is used by the system to recognize the station's capability and set default Flex button configurations. In addition, for iPECS DSS/BLF consoles the associated station is input.

3.5.2.2 Station Attributes

Re: **PGM CODES** 111 ~ 113

Selecting Station Attributes will display the Station Attributes data input page, Figure 3.5.2.2-1. Enter a valid station range and click Load to enter Station Attributes data. Selecting the blue colored text in the Table header will sort the table based on the selected column. Use the check mark to indicate which attributes to define, data for checked attributes is stored for the entire range of stations when saved.

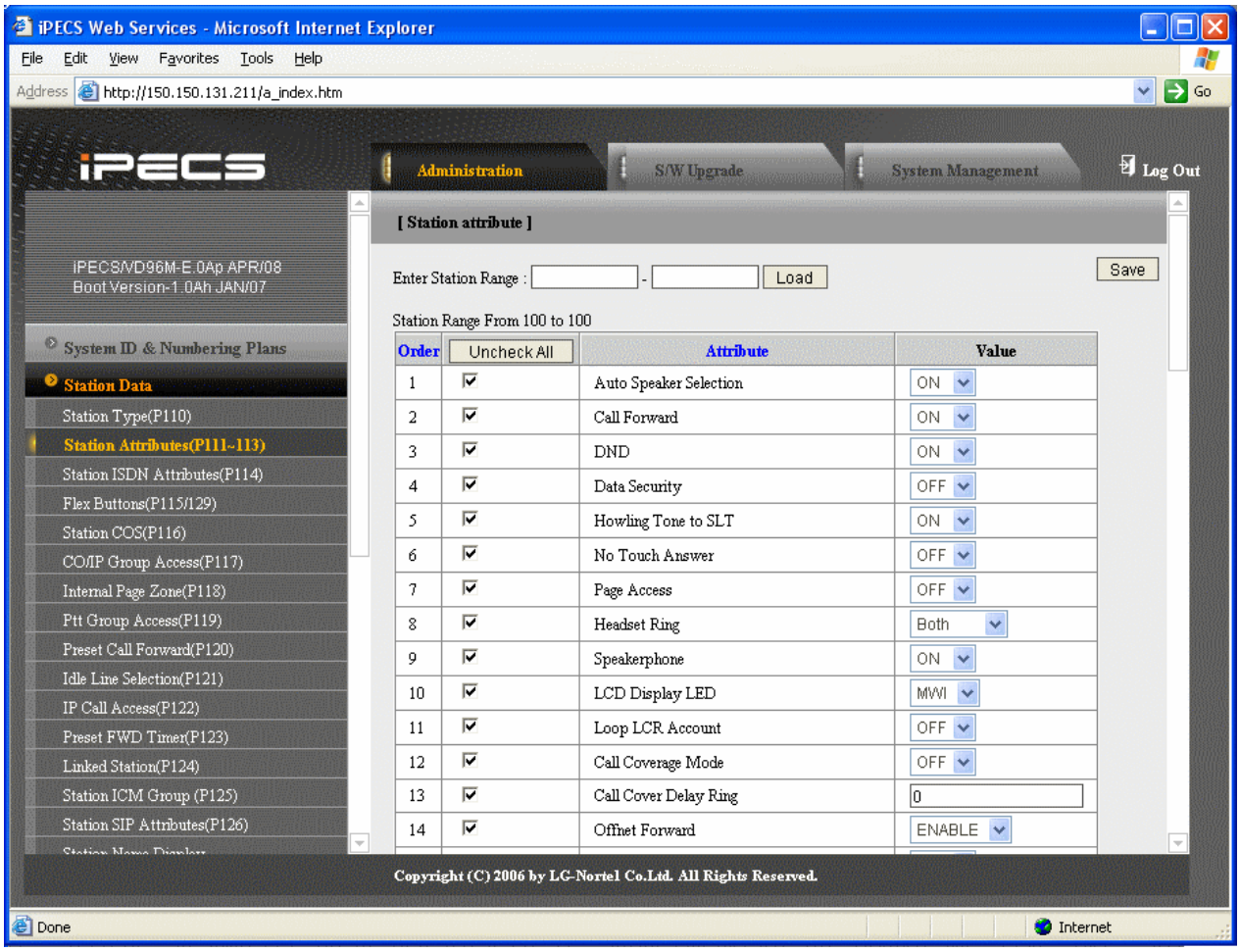


Figure 3.5.2.2-1 Station Attributes

Station Attributes define features and functions available to the station. Generally, the entry will turn the feature ON (enable) or OFF (disable). Refer to Table 3.5.2.2-1 for a description of the features and the input required.

Table 3.5.2.2-1 STATION ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Auto Speak Selection	Enables **[SPEAKER]** activation when a CO/IP, DSS or other feature button is pressed, no need to lift handset.	ON OFF	ON

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Call Forward	Enables Call Forward to be activated by the station.	ON OFF	OFF
DND	Enables DND to be activated by the station.	ON OFF	OFF
Data Security	Disables override and camp-on tones to the station.	ON OFF	OFF
Howling Tone to SLT	Permits Howler tone to be sent to an SLT when left off-hook.	ON OFF	ON
No-Touch Answer	Enables No-touch answer, which automatically connects transferred calls to the station's speakerphone.	ON OFF	OFF
Page Access	Allows station to access paging facilities.	ON OFF	OFF
Headset Ring	Selects device to receive incoming ring signals, Speaker, Headset or Both.	Speaker Headset Both	SPEAKER
Speakerphone	Selects Speakerphone or Headset mode	Speaker Headset	SPEAKER
LCD Display LED	The LCD LED, upper left of LCD, may be used for Intercom Call ring Indication or Message Wait Indication.	RING MWI	MWI
Loop LCR Account	Station based LOOP LCR authorization used for LOOP LCR operation.	ON OFF	OFF
Call Coverage Mode	The Call Coverage feature permits an iPECS Phone user to receive ring and answer calls at other stations.	ON OFF	OFF
Call Cover Delay Ring	When a covered station rings, the **{CALL COVERAGE}** button LED will flash at the covering station and the station will receive ring (immediate or delayed, 0 to 9 ring cycles).	0~9	0
Offnet Forward	A station must be allowed Off Net Fwd to forward external incoming calls outside the system or otherwise establish a CO-to-CO connection (Unsupervised Conference). (Except USA version)	Enable Disable	ENABLE
Forced hands Free Mode	When placing an intercom call, a user can change the ICM signaling mode, Tone Ring to Hands free answer mode or HF Answer to Tone Ring.	ON OFF	OFF
Active PTT Group Number	A station can be assigned to a PTT group and the group enabled so the station can place and receive PTT announcements for the group.	0~9	
ICM Tenancy Group	Assigns stations to an ICM Tenancy Group.	1~15	1
Call Time Tone	A tone can be sent periodically indicating the elapsed time of an outgoing CO/IP call. The Elapsed Call Timer, see System Timers section 3.5.5.20, determines the period between tones.	ON OFF	OFF
Automatic Hold	Enables Auto Hold for the station. With Auto Hold enabled, the system will place an active external call on hold if the user presses a CO/IP or DSS button.	ON OFF	Atd: ON Others: OFF
Call Time Restriction	All outgoing calls will disconnect at expiration of the Call Restrict Timer, see System Timers section 3.5.5.20.	ON OFF	OFF
Individual CO Access	Permits stations to use dial codes to access individual CO Lines.	ENABLE DISABLE	Enable
CO/IP Line Queuing	Permits the station to queue for the next available Line when an All Lines Busy signal is received.	ENABLE DISABLE	Enable

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO PGM	A station can be permitted to change the CO line numbers (ports) associated with a CO Line button.	ENABLE DISABLE	Disable
Ringing Line Preference	Enables Ringing Line Preference for the station. Calls that ring the telephone are answered by going off-hook.	ENABLE DISABLE	Enable
Speed Dial Access	Allows the station to access System Speed Dial bins.	ENABLE DISABLE	Enable
UCD Group Service	When unavailable, DID/DISA calls to the station can be routed to the ACD Group to which the station is a member.	ON OFF	OFF
Ring Group Service	When unavailable, DID/DISA calls to the station can be routed to the Ring Group to which the station is a member.	ON OFF	OFF
Two way Record	When allowed, the station can activate the Two-way record feature to record a conversation.	ON OFF	OFF
Message Scroll Speed	Select message scroll speed (Not used at present)	0 ~7	3
Hot Desk Station	A station can be assigned as a Hot Desk phone. Users and agents can login and use resources of the system through the Hot Desk phone.	ON OFF	OFF
Prefer CO or Group	System will seize this CO Line or CO group number when the station dials “9” (First available Co access code)	CO Line # or CO Grp #	…
Send SLT CLI Info	When allowed, the system sends CLI information to the SLT	ON OFF	OFF
UCD Login Priority	ACD Group members may be assigned a priority, 0-9. Members with the highest priority are sent calls ahead of lower priority members. This field is the same as **PGM CODE** 191-btn 19.	0 ~ 9	0
EZ PWD Login	For ez Atd. enables/disables required Auth code use.	ENABLE DISABLE	Disable
ADMIN	Enables station access to the system Database.	ENABLE DISABLE	Enable
VSF Access	Permits station access to the built-in AA/VM.	ENABLE DISABLE	Disable
Group Listening	Enables Group Listen feature, audio is sent to both the handset and speaker with the handset microphone active and speakerphone microphone OFF.	ENABLE DISABLE	Disable
Override Privilege	Enables intrusion to gain access to an active CO/IP call.	ENABLE DISABLE	Disable
SMDR Hidden Dialed Digits	Enables hiding dialed digits in SMDR output.	ENABLE DISABLE	Disable
Voice Over	Enables use of Voice Over by the station.	ENABLE DISABLE	Enable
Prime Line	Enables Delayed Prime Line (Idle Line) activation, see Idle Line Selection section 3.5.2.10, and Prime Line Delay timer section 3.5.5.20.	HOT WARM	WARM
Alarm/Door Bell	Assigns station to receive Alarm/Door Bell signal.	ENABLE DISABLE	Disable
DID Wait	When a busy station receives a DID call, the call may queue to the station instead of receiving busy tone. With DID Call Wait, the caller hears Ring-back and the user sees the CO line button LED flash.	ON OFF	ON
Left Msg Exec	When a call is forward to the Secretary of an Executive/Secretary pair, messages can be left for the Executive (ON) or Secretary (OFF).	1: ON 0: OFF	ON

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
E&Mic Headset	Select E&Mic or Headset mode for the IP Phone.	1: ON 0: OFF	OFF
Enblock mode	When On, the user-dialed digits are stored at the iPECS Phone until explicitly sent by the user. When sent, all dialed digits are sent to the system in a block. Enblock mode is only available to iPECS Phones with soft keys.	1: ON 0: OFF	OFF
VMID Number	When using an adjunct VM, the system can translate the Mailbox number from the user's station number to the assigned VMID. The system sends the station number or VMID to the VM (in-band or SMDI) in order to identify the appropriate Voice Mailbox.	0000-9999	Station number
Retrieve MSG Method	Messages stored in the VSF may be retrieved in either a FIFO (first-in-first-out) or LIFO (last-in-first-out) order based on this entry.	FIFO LIFO	LIFO
Auto ACD DND	If an Agent does not answer an ACD call in the ACD No Answer timer, the Agent enters an Unavailable state with the Reason code entered here. The reason code is sent in the ACD Event message.	0: None #, *, 1~9	NONE
Forward if OOS	If a station is Out-of-Service and has previously forwarded calls, the system will forward the calls if enabled here.	1: ON 0: OFF	OFF
Back Light Usage	The backlight of the LIP-7000 series phones is assigned to stay off, light only when the station is busy, or light constantly.	Always Off Busy Only Always On	BUSY ONLY
Emergency CO or Group	This field defines the CO Line or Group employed by the system to place Emergency Assistance calls.	CO # or CO Grp #	Any CO
Station Account	When ON, the station user must enter an authorization code to access CO Lines.	0: OFF 1: ON	OFF
UMS MSG – SMTP Mail Server Address	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the user's e-mail mail server for the notification.	IP v4 address Or Mail server name	
UMS MSG – User Mail Address	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the e-mail address to notify when a new message is received at the VSF or VMIM.	e-mail address	
SIP USER TABLE INDEX	Index to SIP User ID table, **PGM CODE** 126, for the station. Note **PGM CODE** 126 is accessible by Web only.	0~150	0
VSF/VMIM GW Slot Seq.	Assigns the VSF or VMIM where messages for the station are stored.	Seq. No.	
Auto Talk Recording Option	This field enables unconditional recording of all calls placed/received by the station. Recordings, in .wav format, are stored at the Phontage/UCS Client defined as the Call Recording Station below.	0: OFF 1: ON	OFF
Auto Talk Recording Dest.	When Auto Call recording is defined for a station, the recording Phontage or UCS Client station number is defined here.	station	

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Backup Delete Option	A Phontage or UCS Client may monitor voice messages for another station as a back up. The Phontage or UCS Client will include the message count for the station in the Voice message count. When enabled here, the Phontage/UCS Client may delete messages for the station.	0: OFF 1: ON	OFF
VSF Backup Station	A Phontage or UCS Client may monitor voice messages for another station as a back up. The Phontage or UCS Client will include the message count for the station in the Voice message count. This field defines the Phontage or UCS Client station number that will be used as the VSF/VMIM back up.	station	
VSF Backup Prompt	A Phontage or UCS Client may backup VSF Prompts.	0: OFF 1: ON	OFF
Block Back Call	When an SLT extension attempts to transfer a CO call to a CO line it is blocked and the call is released	0: OFF 1: ON	OFF
BY PASS DTMF	When detected, DTMF from an SLT may be regenerated by LGCM, SLTM port can by-pass detection so DTMF is not detected.	0: OFF 1: ON	OFF
Proctor Monitoring Power-Fail	Enables use of PABX ANI Link device for E-911 support, Only SLT can be used for this feature.	0 : OFF 1 : ON	OFF
UMS MSG – SMTP Mail Server ID	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the e-mail address to notify when a new message is received at the VSF or VMIM.		
UMS MSG – SMTP Mail Server Password	Unified Mail server password		
Camp-on Tone	Permits camp on tone to be sent to a station when the station receives a camp-on request..	0: OFF 1: ON	ON
Serial DSS Usage	Enables an LIP-8000 station to have a Serial DSS attached	ENABLE DISABLE	ENABLE
ICM Dial Tone Source	One of four dial tone sources can be selected for each station Dial-tone MOH 1 MOH 2 VSF MOH.	Dial Tone Int/Ext 1 Ext 2 VSF MOH	Dial Tone
ICM Ring Back Tone Source	One of four ring back tones can be selected for each station Ring Back tone MOH 1 MOH 2 VSF MOH	Ring Back Tone Int/Ext 1 Ext 2 VSF MOH	Ring Back Tone
UMS MSG - Attach Message	When e-mail notification of a new VSF/VMIM message is enabled (**PGM** 236-btn 7), the e-mail may include the voice mail as a wav file attachment. UMS mail server IP (**PGM** 113-18) & UMS Mail Address (**PGM** 113-19) are required for proper operation.	0: OFF 1: ON	ON
Door Open	Enables use of Door open feature by station	0:Disable 1:Enable	ENABLE
Outgoing Mailbox Destination	If a CO/IP incoming, Caller dials "0" when listening to a station's VSF mailbox greeting the call is routed according to this option.		
VSF MSG Date/Time	When ON, play the data/time stamp of VSF message	0 : OFF 1 : ON	ON

3.5.2.3 Station ISDN Attributes

Re: **PGM CODE** 114

Selecting Station ISDN Attributes will display the Station ISDN Attributes data input page, Figure 3.5.2.3-1. Enter a valid station range and click Load to enter Station ISDN Attributes data. Selecting the blue colored text in the Table header will sort the table based on the selected column.

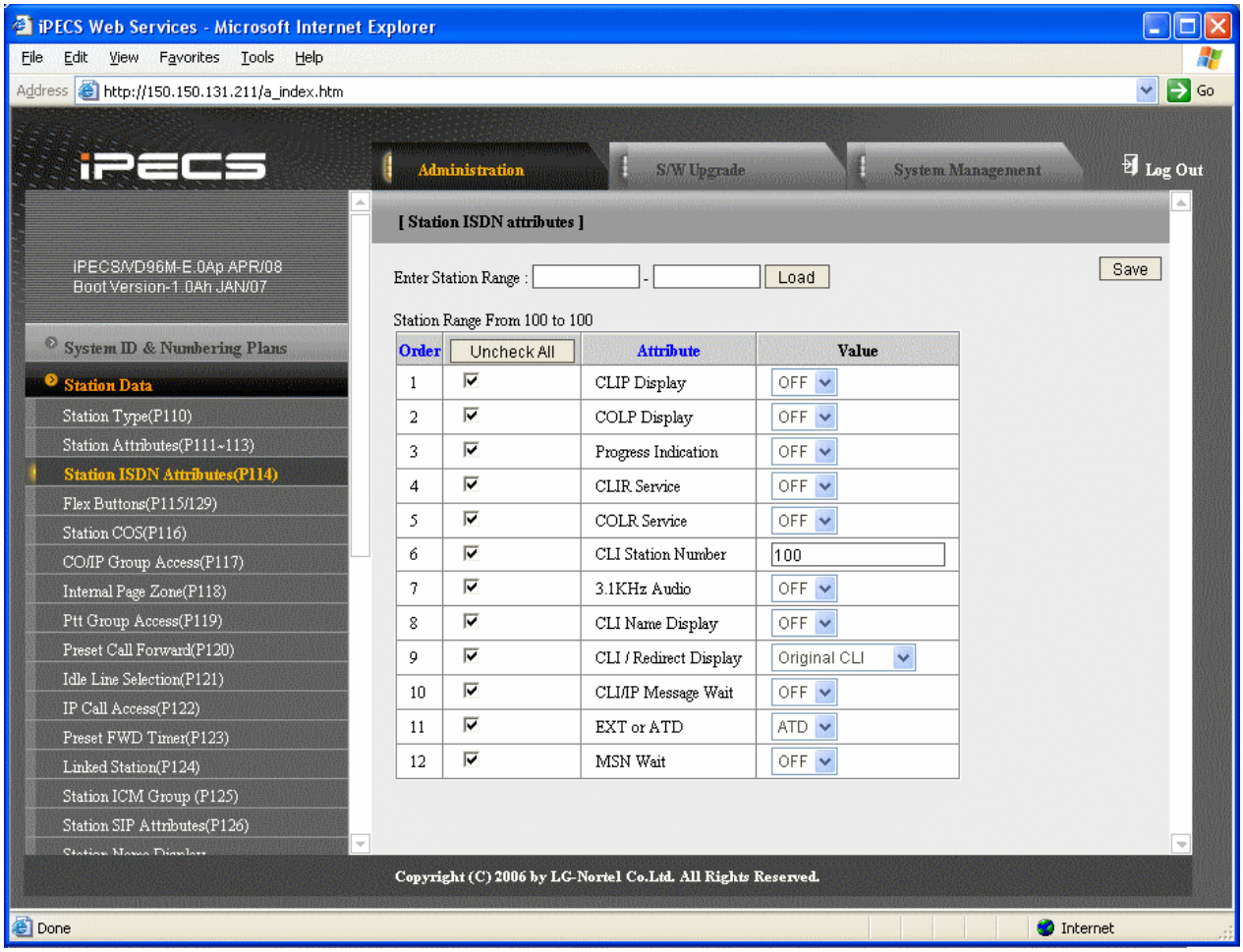


Figure 3.5.2.3-1 Station ISDN Attributes

When a station uses an ISDN Line, various parameters relating to ISDN Calling Line Identification and Connected Line Identification can be assigned for each station. In addition, when the station is an SLT, several parameters must be set to indicate the capabilities related to the station, such as 3.1 KHz audio for ISDN use. Refer to Table 3.5.2.3-1 for a description of the attributes and the inputs available.

Table 3.5.2.3-1 STATION ISDN ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CLIP Display	CLIP (Calling Line Identification Presentation), an ISDN service, sends the number of the calling party to the system in the call SETUP message. If enabled here, the number will be shown in the iPECS Phone LCD.	ON OFF	ON
COLP Display	COLP (Connected Line Id Presentation), an ISDN service, sends the number of the answering party to the system in the call CONNECT message. If enabled here, the number will be shown in the iPECS Phone LCD.	ON OFF	OFF
Progress Indication	When employing a non-ISDN terminal, specifically a modem or analog FAX, the ISDN call SETUP message must include this message and the Progress Indication parameter should be set to “ON”.	ON OFF	OFF
CLIR Service	CLIR (Calling Line Identification Restriction), an ISDN service, removes calling party Id sent from the ISDN to the called party with a RESTRICT instruction in the SETUP message. If enabled here, the system will send the RESTRICT instruction to the PSTN when an outgoing ISDN call is placed.	ON OFF	OFF
COLR Service	COLR (Connected Line Id Restriction), an ISDN service, removes connected party Id sent from the ISDN to the calling party with a RESTRICT instruction in the CONNECT message. If enabled here, the system will send the restrict instruction to the PSTN when the station answers an ISDN call.	ON OFF	OFF
CLI Station Number	When not restricted and entry of 00 in the CLIP/CLOP Table is selected, this entry is added to the number sent in the ISDN call SETUP or CONNECT message in place of the station number.	4-digits	Station number
3.1 KHz Audio	When an analog device (SLT or FAX) uses an ISDN Line in the system, the Information Element of the ISDN SETUP message must indicate the device only has 3.1 KHz audio capabilities. If an SLT or analog FAX will be allowed access to the ISDN Lines, this parameter must be “ON”	ON OFF	OFF
CLI Name Display	When the CLI data from the ISDN in the call SETUP message matches a number in Speed Dial, the system can display the name associated with the Speed Dial bin, if set to ON.	ON OFF	OFF
CLI / Redirect Display	When an incoming ISDN call is Redirected by the ISDN, the call SETUP message will contain an original and redirected CLI. This selection determines if the iPECS Phone will display the original or redirected number.	Redirect CLI Original CLI	Original CLI
CLI/IP Message Wait	A log of caller identification can be maintained for the user, permitting the user to call back the identified party. Up to 1000 entries can be maintained in the log, system-wide.	ON OFF	OFF
EXT or ATD	When the system sends a station number with CLIP or COLP, the number can be either the Attendant number or the number of the station.	ATD EXT	ATD
MSN Wait	When a station has an MSN button, the station can receive ring for a call to the MSN number associated with the MSN button.	ON OFF	OFF

3.5.2.4 Flexible Buttons

Re: **PGM CODE** 115

Selecting Flex Buttons will display the Flex buttons data input page, Figure 3.5.2.4-1. Enter a valid station range and click Load to enter Flex button data.

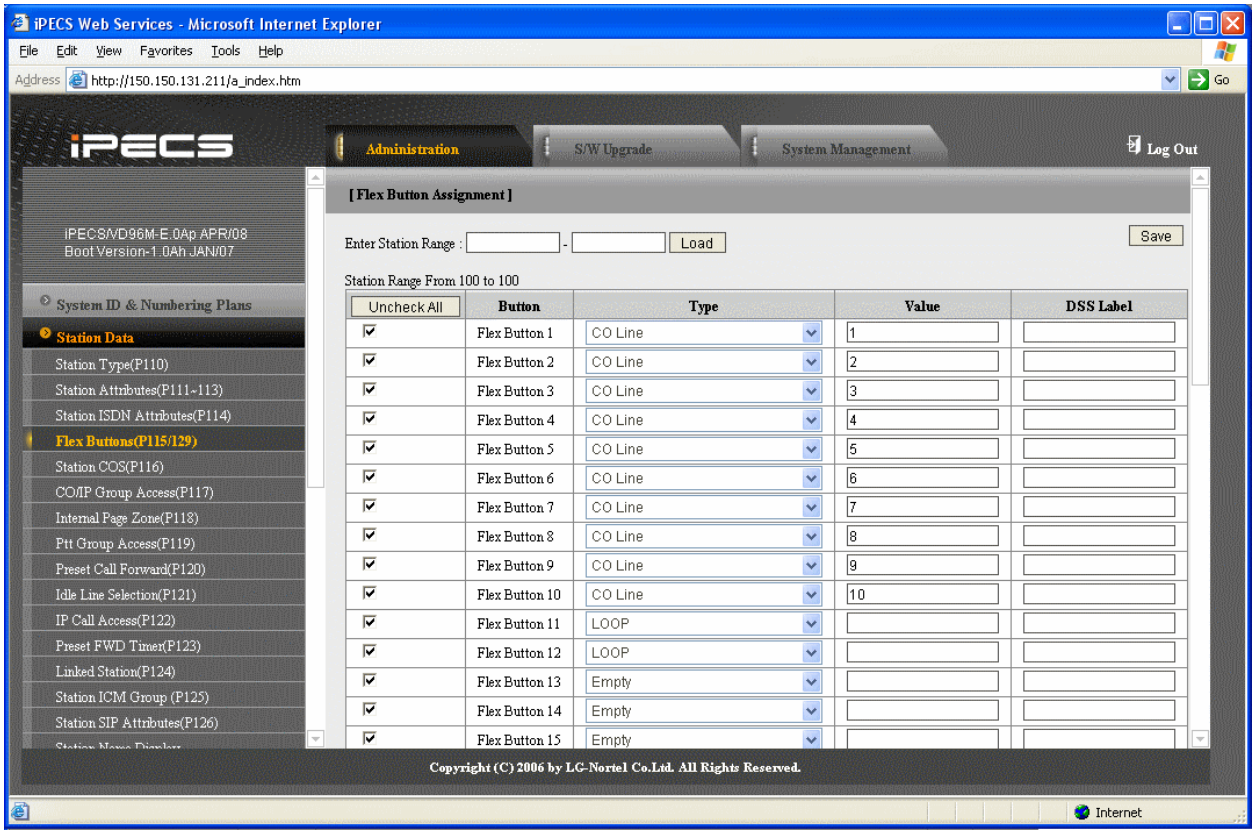


Figure 3.5.2.4-1 Flex Buttons Assignment

Each Flex button for each iPECS Phone/DSS Console can be assigned a function (TYPE) as below. After selecting the Type for a button, enter the value, if required. The types available from the drop-down menu are:

- Empty
- Number Plan
- User Program code
- Station Speed Dial
- System Speed Dial
- Net Station Number
- MSN Number

If the station has an associated LIP-8012LSS Console, the DSS Label field can be used to assign a label that is displayed for the console buttons.

3.5.2.5 Station COS

Re: **PGM CODE** 116

Selecting Station COS will display the Station COS data input page, Figure 3.5.2.5-1. Enter a valid station range and click Load to enter the Station COS data.

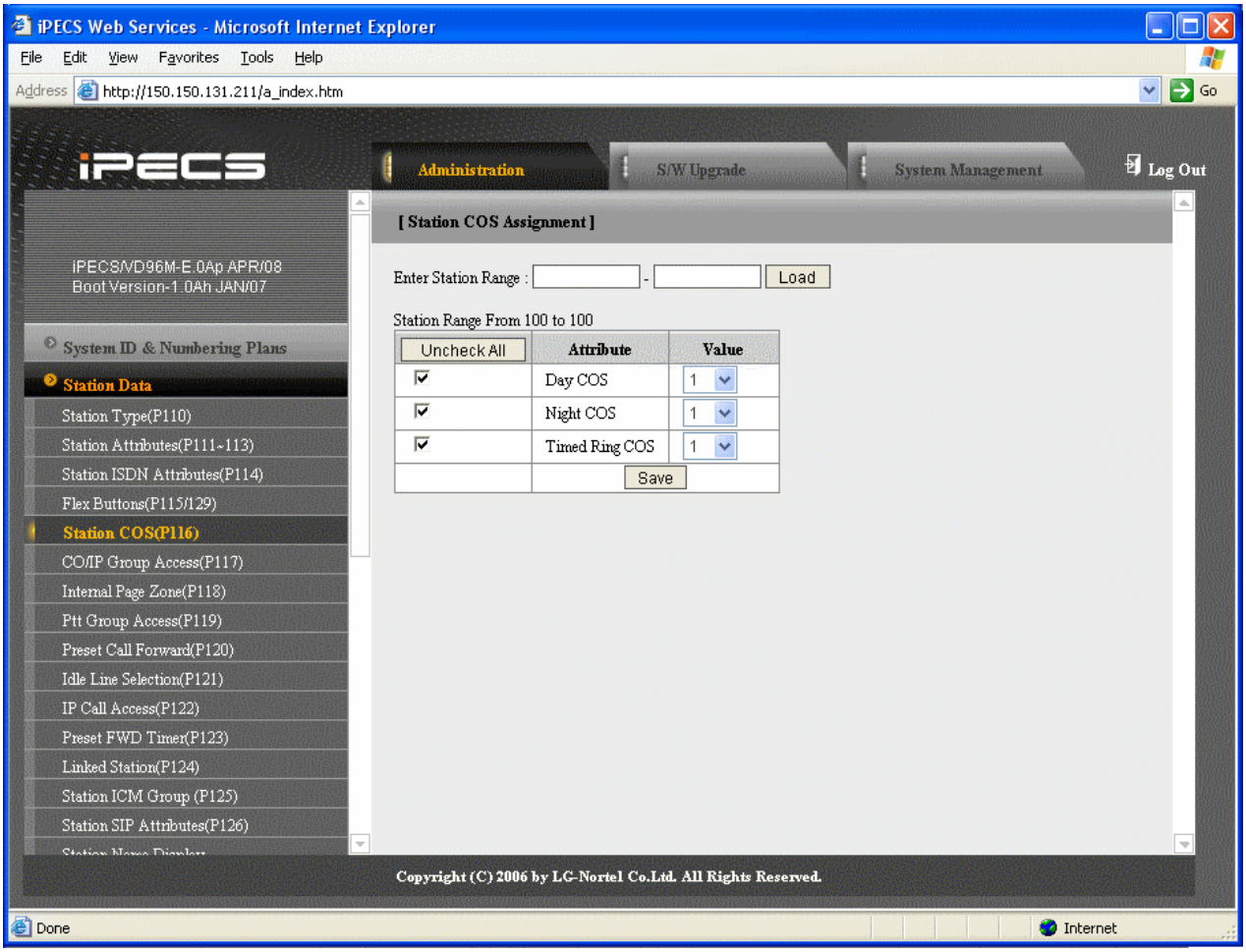


Figure 3.5.2.5-1 Station COS

All stations are assigned a Class-of-Service (COS), which determines the ability of the user to dial certain types of calls, refer to Table 3.5.2.5-1. Separate COS assignments are made for Day, Timed and Night Mode operation. As a default all stations are assigned with a Station COS of 1 for all modes, no restrictions. The station COS interacts with the CO Line COS to establish overall dialing or TOLL restrictions. This interaction and the resulting restrictions are given in Table 3.5.2.5-2.

Long distance calls are determined by the 1st dialed digit (“0” or “1”) and the number of digits dialed. If the 1st digit dialed is a LD code, default “0” or “1”, or, if the number of digits dialed exceeds the assigned LD digit counter (System Data SMDR Attributes section 3.5.5.17), the call is consider a Long Distance call and appropriate restrictions applied.

Table 3.5.2.5-1 STATION COS

STATION COS	RESTRICTIONS
1	No restrictions are placed on dialing from the station.
2	The assignments in Exception Table A are monitored for allow and deny numbers.
3	The assignments in Exception Table B are monitored for allow and deny numbers.
4	The assignments in both Exception Tables A & B are monitored for allow and deny numbers.
5	The leading digit dialed cannot be a Long Distance code, default "0" or "1", and further denied/allowed based on Exception Table C.
6	The leading digits dialed cannot be a Long Distance code & digit count cannot exceed the LD digit counter, default 7 digits, and further denied/allowed based on Exception Table C.
7	Intercom and paging calls are allowed. No outgoing dialing except for emergency calls is allowed on CO Lines.
8	The assignments in the Exception Table D are monitored for allow and deny numbers.
9	The assignments in the Exception Table E are monitored for allow and deny numbers
10	The assignments in the Exception Table D & E are monitored for allow and deny numbers.
11	The assignments in the Exception Table A & B and D & E are monitored for allow and deny numbers.

Table 3.5.2.5-2 STATION/CO COS

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 1	No Restriction	No Restriction	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 2	Exception Table A governs the dialing	Exception Table A governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 3	Exception Table B governs the dialing	No Restriction	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 4	Exception Table A&B governs the dialing	Exception Table A governs the dialing	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 5	Local Call only (LD Code, "1" or "0") and Table C	Local Call only (LD Code "1" or "0") and Table C	Local Call only (LD Code,"1" or "0") and Table C	Only Local Call (LD code/counter) and Table C	No Restriction OS
STA COS 6	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 7	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only
STA COS 8	Exception Table D governs the dialing	Exception Table D governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 9	Exception Table E governs the dialing	Exception Table E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 10	Exception Table D & E governs the dialing	Exception Table D & E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 11	Exception Table A & B and D & E governs the dialing	Exception Table A & B and D & E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction

3.5.2.6 CO/IP Group Access

Re: **PGM CODE** 117

Selecting CO/IP Group Access will display the CO/IP Group Access data input page, Figure 3.5.2.6-1. Enter a valid station range and click Load to enter CO/IP Group Access data. Check the appropriate boxes to allow or delete access to each CO/IP Group.

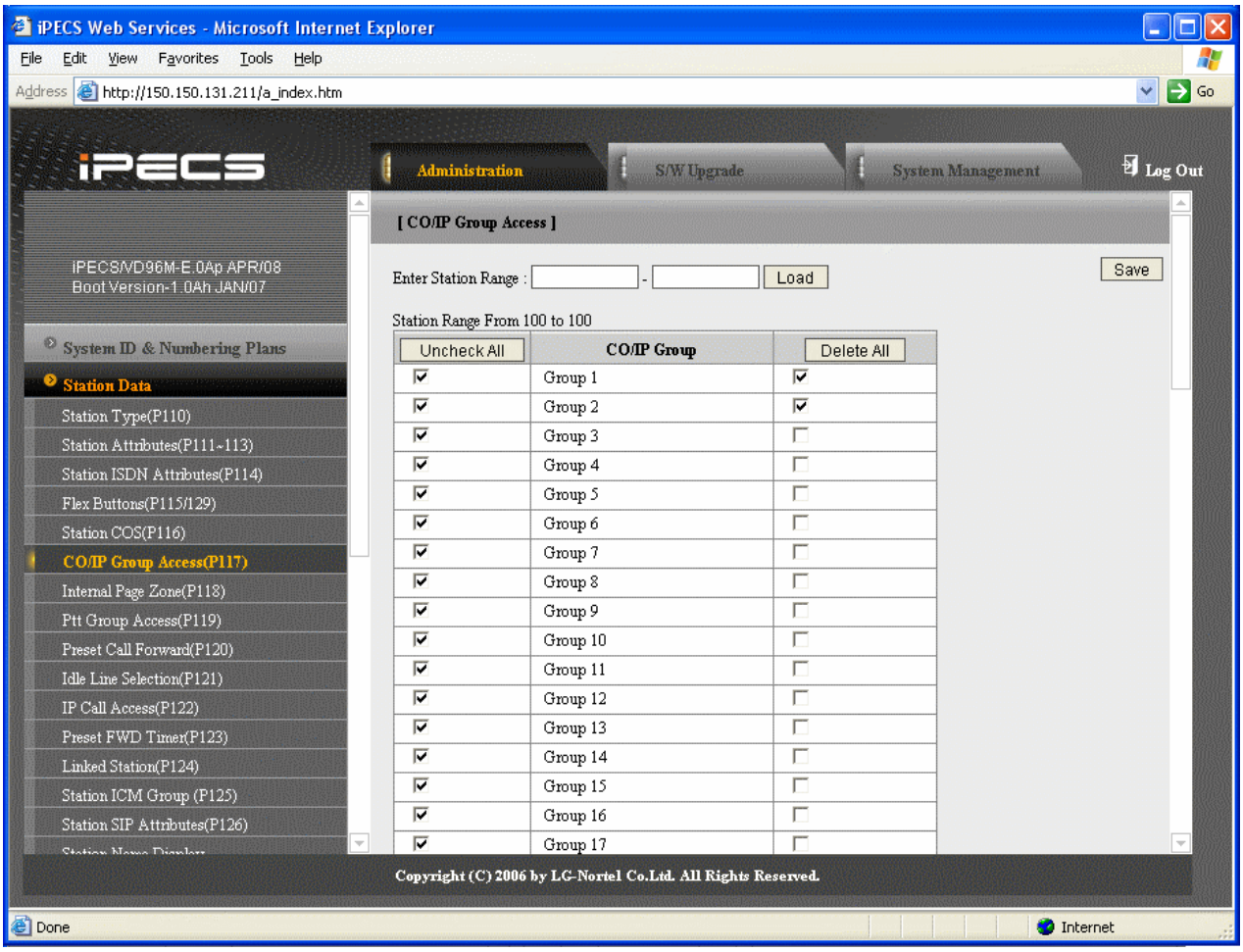


Figure 3.5.2.6-1 CO/IP Group Access

Stations can be allowed or denied access to CO Lines and IP Channels by group. As a default, all stations are allowed access to all groups except Private Lines (group 00) and unused CO Lines. The CO Line of an RSGM is assigned as a Private Line by default.

3.5.2.7 Internal Page Zone Access

Re: **PGM CODE** 118

Selecting Internal Page Zone Access will display the Internal Page Zone data input page, Figure 3.5.2.7-1. Enter a valid station range and click Load to enter the Internal Page Zone Access data. Check the appropriate boxes to allow or delete access to each Internal Page Zone.

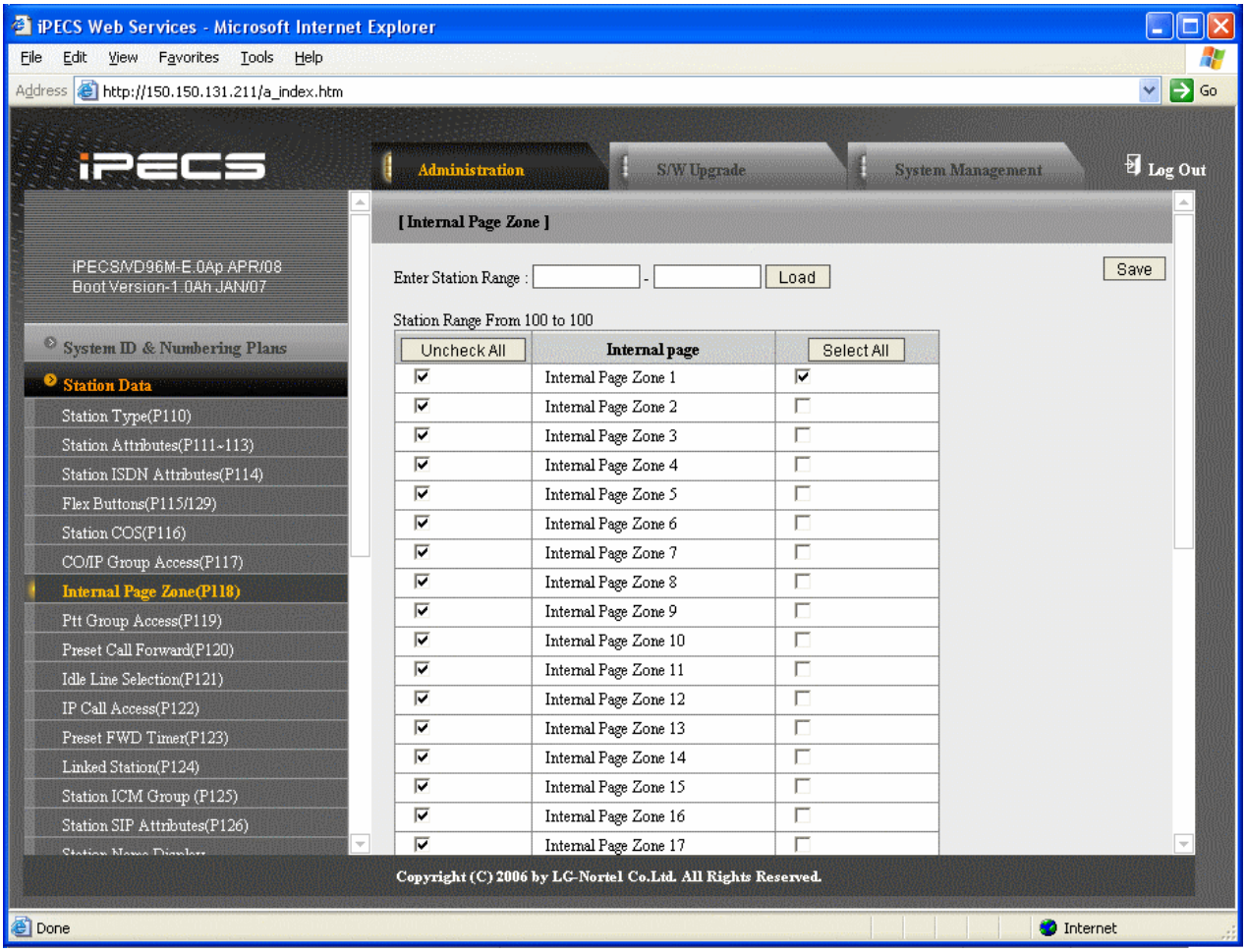


Figure 3.5.2.7-1 Internal Page Zone Access

Each iPECS Phone is assigned to receive announcements from each Internal Page Zone. A station can be assigned to any, all or no zones. Note a remote station or a station not assigned to any Internal Zone will not receive any page announcements including Internal All Call. For the iPECS-Micro, iPECS-50 and MFIM100, ten Internal Page Zones are available and for other MFIMs, there are 35 zones. As a default, all stations except remote stations are assigned to zone 1.

3.5.2.8 PTT Group Access

Re: **PGM CODE** 119

Selecting PTT Group Access will display the PTT Group Access data input page, Figure 3.5.2.8-1. Enter a valid station range and click Load to enter the PTT Group Access data. Check the appropriate boxes to allow or delete access to each PTT Group.

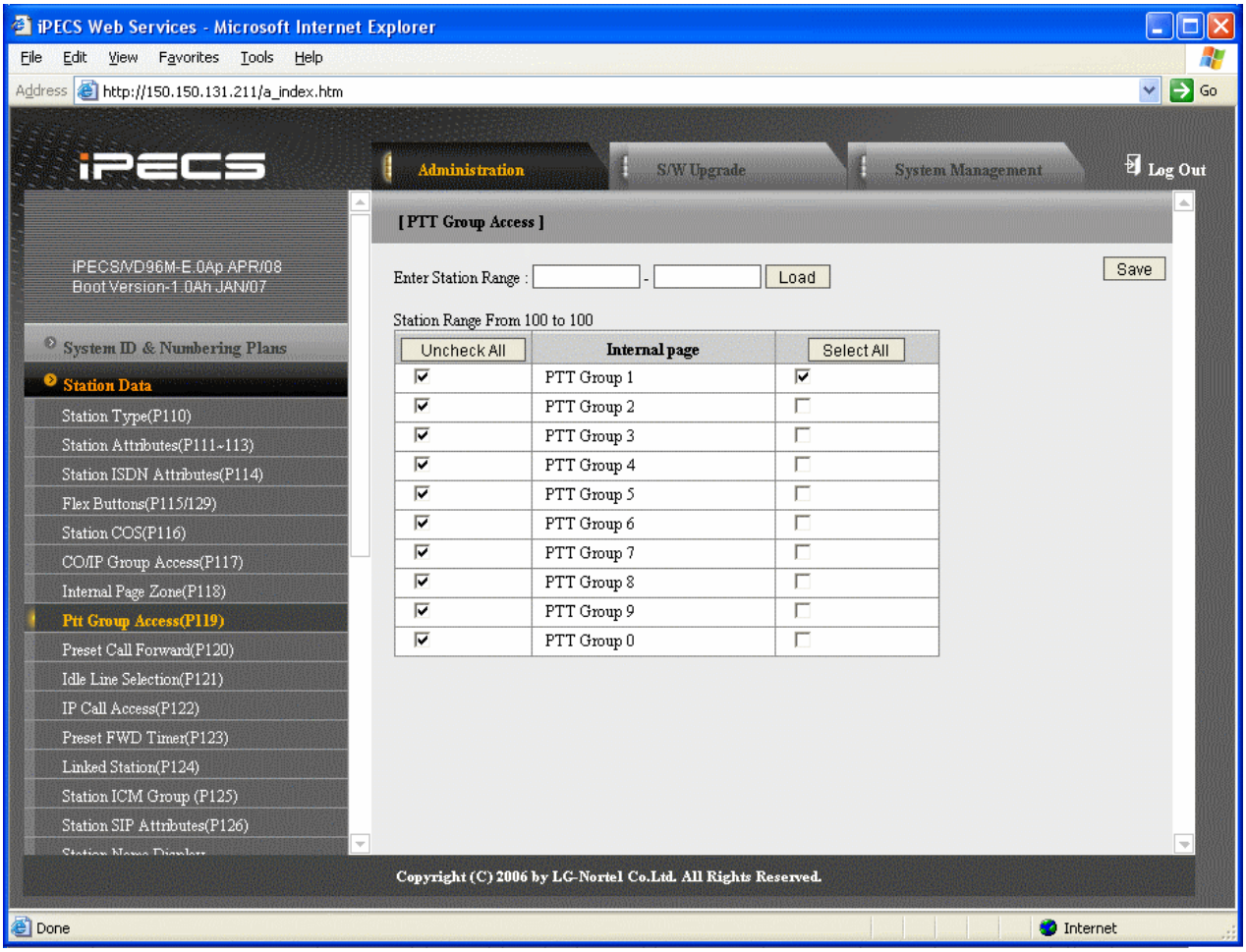


Figure 3.5.2.8-1 PTT Group Access

Each iPECS Phone is assigned to receive PTT announcements from any combination of the nine (9) PTT groups. Note a station not assigned to any group will not receive PTT page announcements including Internal All PTT group page. As a default, all stations except remote stations are assigned to group 1.

3.5.2.9 Preset Call Forward

Re: **PGM CODE** 120

Selecting Preset Call Forward will display the Preset Call Forward data input page, Figure 3.5.2.9-1. Enter a valid station range and click Load to enter the Station Preset Call Forward data.

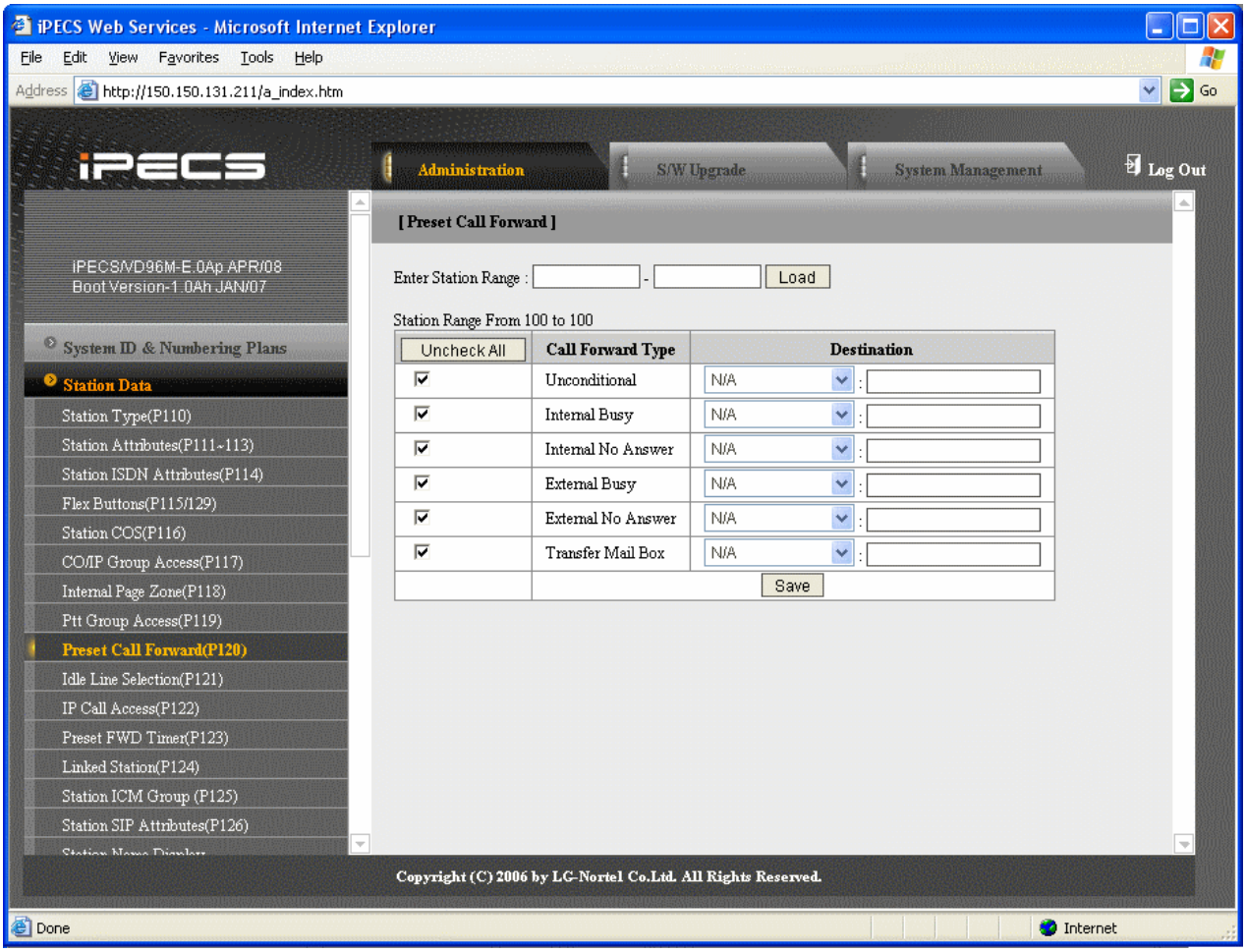


Figure 3.5.2.9-1 Preset Call Forward

Stations can be programmed so that incoming CO and Intercom calls are forwarded to a preset station or station group. This allows an external or internal call to initially ring at a station and forward to a pre-determined destination. Preset Forward can be separately assigned Unconditional, Internal Busy, Internal No Answer, External Busy or External No Answer preset forwarding to any station, hunt group, system speed dial bin (off-net) or Station ICR. As a default, no Preset Call Forward is assigned.

For “Transfer Mail-Box” enter the Station Group number of the Voice Mail group (external VM, VSF or Feature Server Voice Mail group). This will permit iPECS Phone users to forward calls directly to the desired user’s Voice Mail-Box.

3.5.2.10 Idle Line Selection

Re: **PGM CODE** 121

Selecting Idle Line Selection will display the Idle Line Selection data input page, Figure 3.5.2.10-1. Enter a valid station range and click Load to enter the Idle Line Selection data.

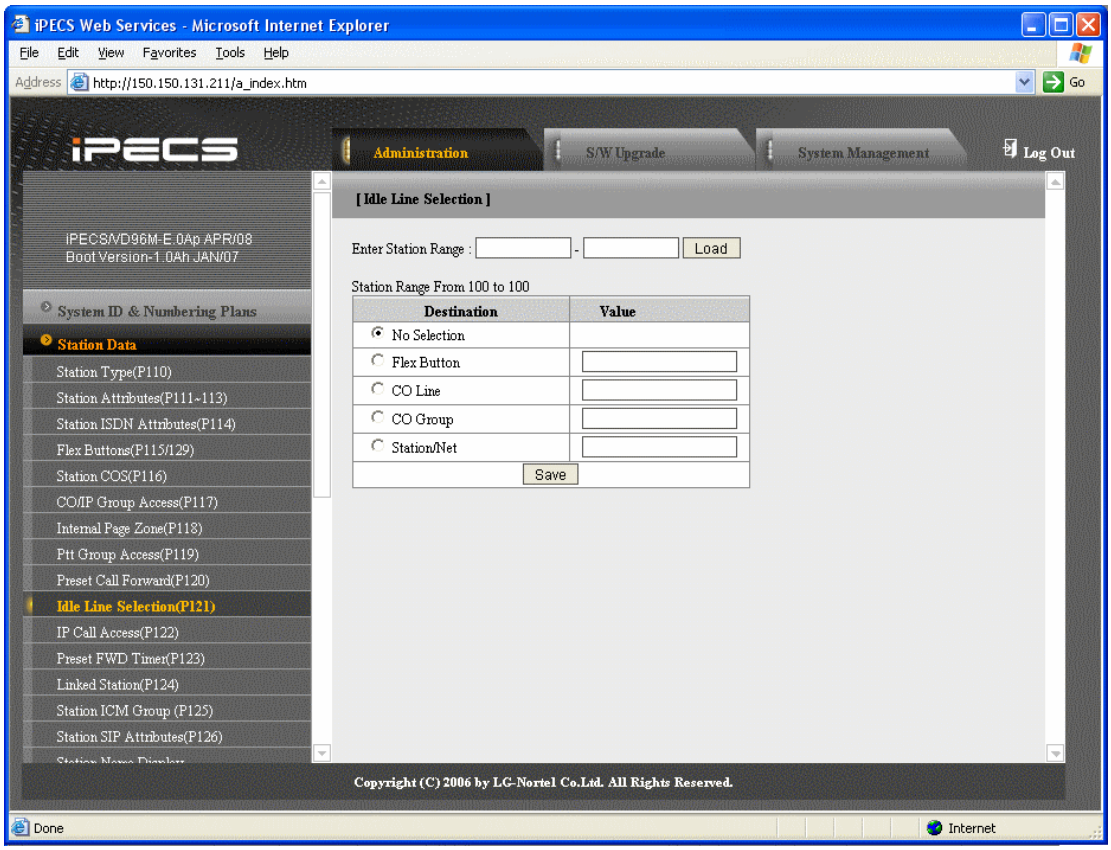


Figure 3.5.2.10-1 Idle Line Selection

When a station goes to an off-hook condition (lifts handset or presses **[SPEAKER]** button), the system normally provides intercom dial tone. In place of dial tone, the station can be programmed to access a CO Line, CO/IP Group or call a Station or Station Group as described in Table 3.5.2.10-1 when the station goes off-hook. The Idle Line Selection (Prime Line) can be either immediate or delayed after going off-hook. The immediate/delay selection is based on the Hot/Warm assignment in Station Attributes Prime Line, section 3.5.2.2.

Table 3.5.2.10-1 IDLE LINE SELECTION TYPE & VALUE

TYPE	RANGE					DESCRIPTION
	iPECS-Micro	iPECS-50 MFIM100	MFIM300	MFIM 600	MFIM1200	
No Selection						Returns Intercom dial tone.
Flex Button	01~24	01~24	01~24	01~24	01~24	Flex button, activates Flex button as if pressed.
CO Line	01~05	01~42	01~200	001~400	001~600	CO/IP path, seizes CO line.
CO/IP Group	01~20	01~20	01~72	01~72	01~100	CO/IP Group, seizes CO line from the CO/IP Group.
Station/Net	100~125	iPECS-50: 100~149 MFIM100: 100~169	100~399	1000~1599	1000~2199	Station, calls the assigned station

3.5.2.11 Station IP Attributes

Re: **PGM CODE** 122

Selecting Station IP Attributes will display the Station IP Attributes data input page, Figure 3.5.2.11-1. Enter a valid station range and click Load to enter the Station IP Attributes data.

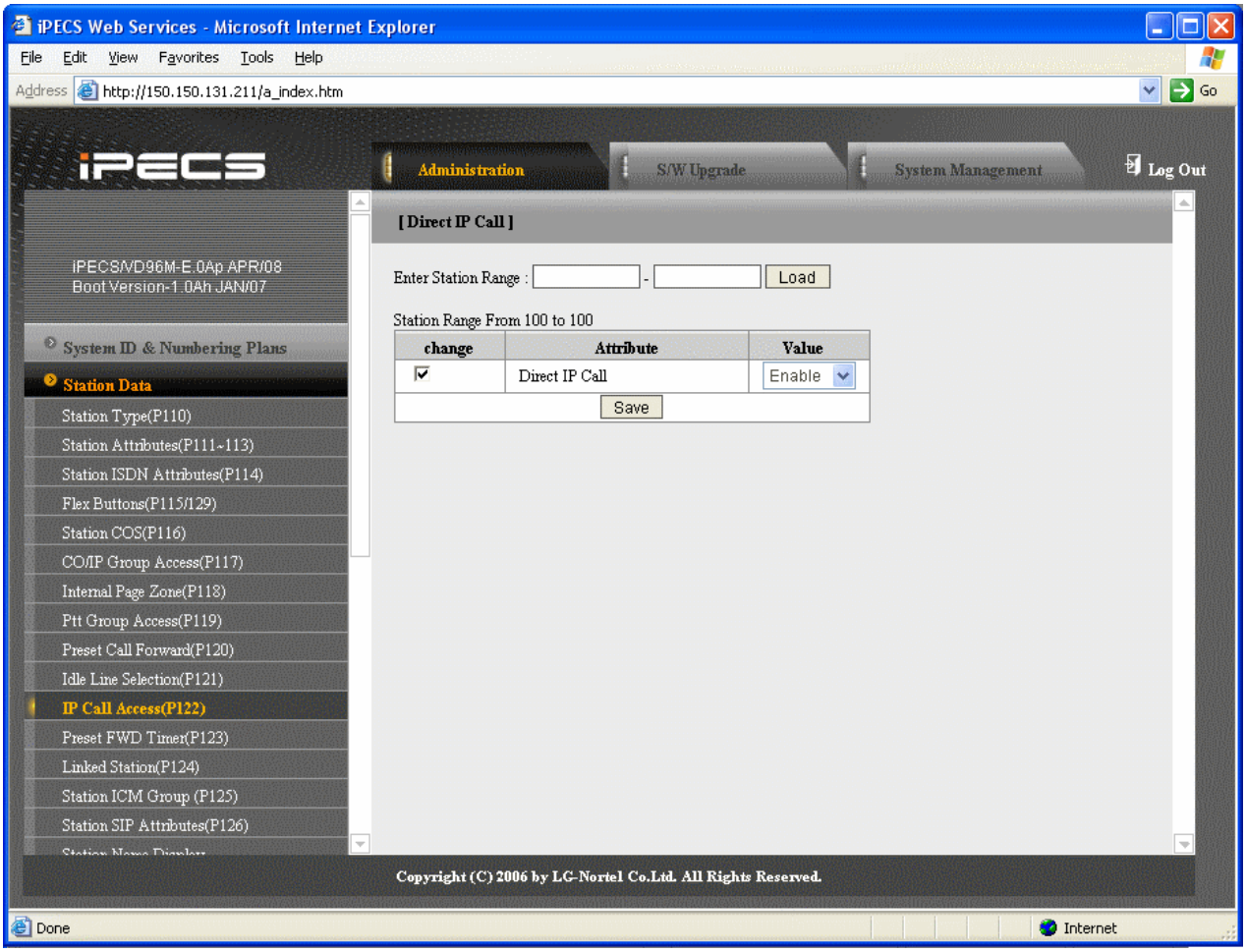


Figure 3.5.2.11-1 Station IP Attributes

Stations are allowed access to the systems VoIP resources based on the Station IP Attributes.

3.5.2.12 Station Timers

Re: **PGM CODE** 123

Selecting Station Timers will display the Station Timers input page, Figure 3.5.2.12-1. Enter a valid station range and click Load to enter the Station Timers data.

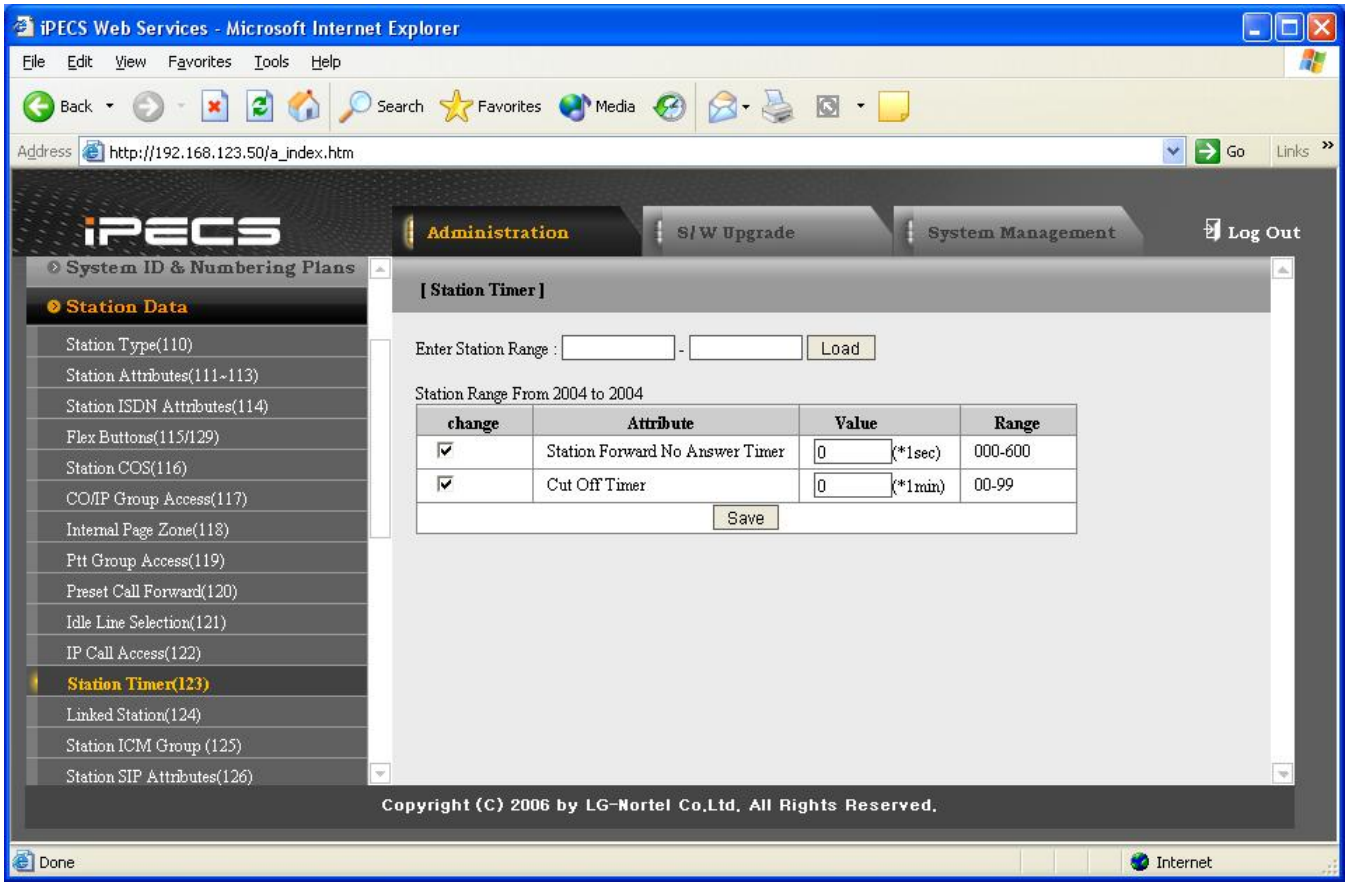


Figure 3.5.2.12-1 Station Timers

Certain timers can be assigned on a station basis. Available timers, description and valid inputs are given in Table 3.5.2.12-1.

Table 3.5.2.12-1 STATION TIMERS (PGM 123)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Station Forward No Answer Timer	This timer determines the duration the station will ring prior to Ring-No-Answer Forward. This setting affects both manual and Preset Call Forward and overrides the System No answer forward timer section 3.5.5.20.	000-600 seconds	000
Cut Off Timer	Allowed length of CO/IP calls when station is assigned Call Time restriction in Station Attributes II, **PGM CODE** 112, button 3	00-99 minutes	00

3.5.2.13 Linked Station

Re: **PGM CODE** 124

Selecting Linked Station will display the Linked Station input page, Figure 3.5.2.13-1. Select the Station Order range above the table header. Input the data for the linked station and click the save button. Selecting the blue colored text in the Table header will sort the table based on the selected column.

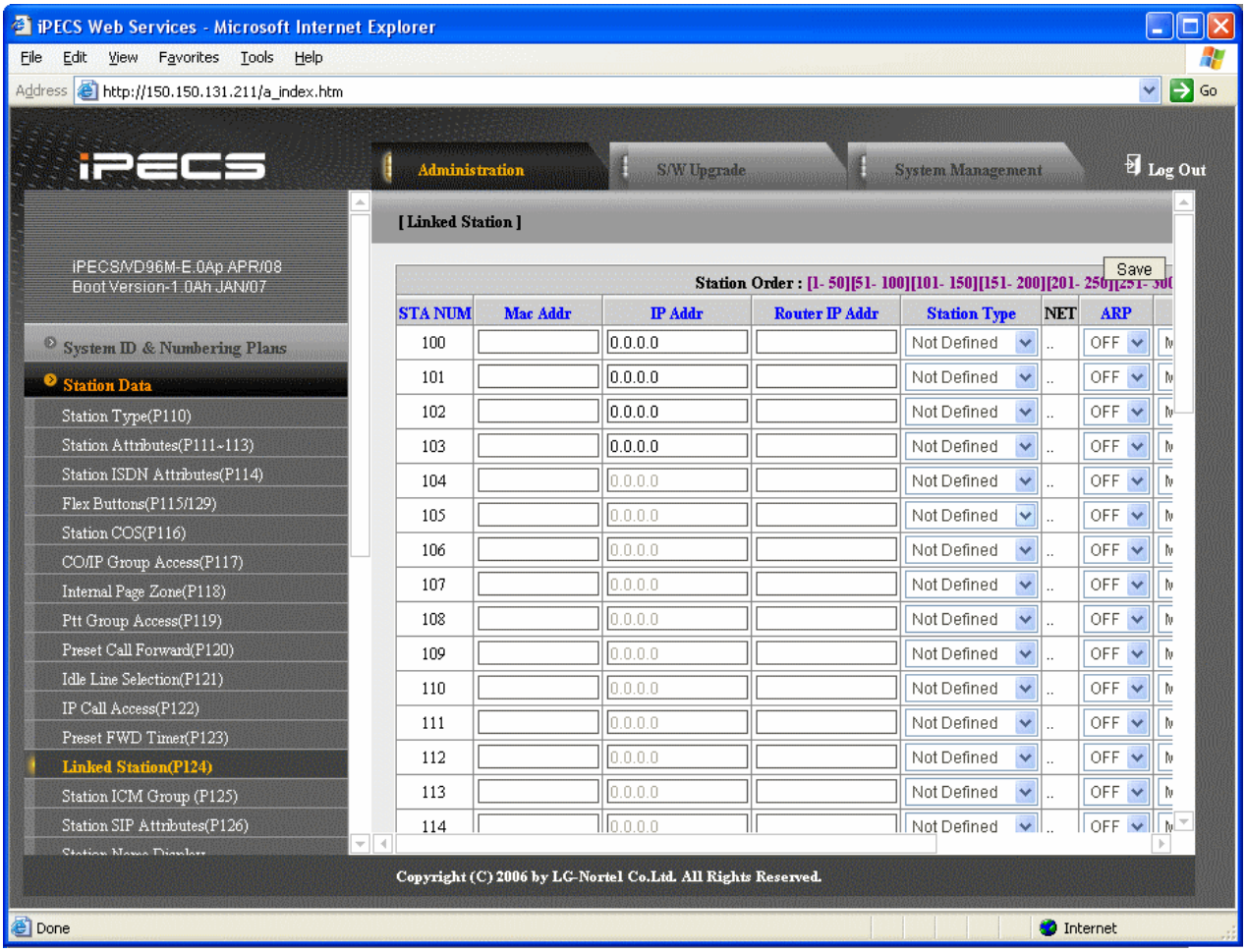


Figure 3.5.2.13-1 Linked Station Pair

A station can be linked to another station so that the two stations effectively act as a single station with the attributes of the primary station number. An unregistered or registered station may be linked to a primary station. When unregistered station linking is used, the linked station does not reduce the system's capacity. However, in this case, the linked station must be an iPECS Phone, Phontage, UCS Client or an SLT connected to an SLTM2. Unregistered linking of stations connected to other modules is not allowed.

When a pre-registered station is to be linked to the primary station, it maintains its database except that the station number is the same as the primary station. In this case, the linked station will reduce the system capacity by one.

When a station is linked, characteristics of the connection to the MFIM can be defined such as local device connection and codec type.

Table 3.5.2.13-1 LINKED STATION TABLE

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
MAC Address	Set MAC address of a new linked station		
IP Address	IP Address can be defined or modified for a linked station		
Router IP Address	Set Router IP address for a linked station		
Station Type	Select Linked station Type	Not Defined IPKTS SLT WKT Virtual Phone	Not Defined
NET	Displays the TNET assignment		
Direct Send	If enabled, system will directly send packets using the MAC address.	ON/OFF	ON
Local Device	Local device (On) or Remote device (Off)	ON/OFF	ON
Codec Type	CODEC type 0: G.711 1:G.723.1 2:G.729 3: Follow system codec, section 3.5.5.1	0-3	3
Slave Station Num	When a Linked station is pre-registered with the system, this field may be used to establish the link. Enter the secondary station number.	Station number	none

3.5.2.14 Station ICM Tenancy Group

Re: **PGM CODE** 125

Selecting Station ICM Group displays the Station ICM Group input page, Figure 3.5.2.14-1. Select ICM Tenant Group, the system will display the ICM Tenant Group Characteristics. Check the appropriate box to allow access to the group and enter the station number of the group Attendant.

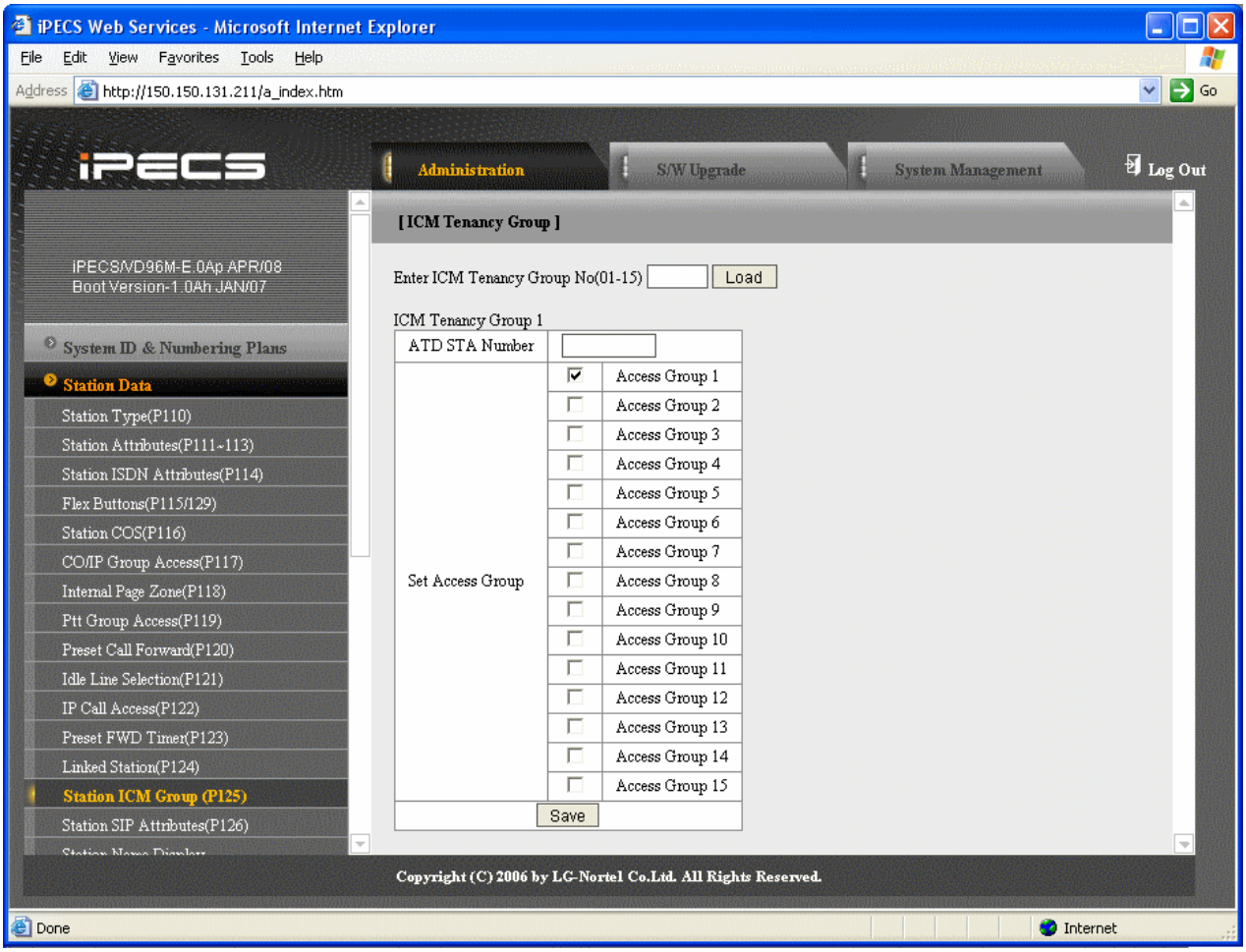


Figure 3.5.2.14-1 Station ICM Tenancy Group

Stations can be assigned to an ICM Tenancy group under Station Attributes section 3.5.2.2. Up to 15 Tenant groups can be defined. Each group is configured to allow or deny placing intercom calls to stations in other groups and an Attendant station can be defined for each group.

Table 3.5.2.14-1 STATION ICM TENANCY GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Tenancy Atd.	Attendant station for the ICM Tenant group. Atd. receives dial '0' calls and controls Day/Night Service.	Station No.	
Group Access	ICM tenancy groups allowed access by stations of the selected group.	1~15	1

3.5.2.15 Station SIP Attributes 2

Re: **PGM CODE** 126

Selecting Station SIP Attributes will display the Station SIP input page, Figure 3.5.2.15-1. Enter a valid SIP User ID Index Number range, see Station Attributes, and click Load to view the Station SIP Attributes 2 for the first index in the range. Enter new data and click Save to modify the attributes for the index range. Selecting the blue colored text in the Table header will sort the table based on the selected column.

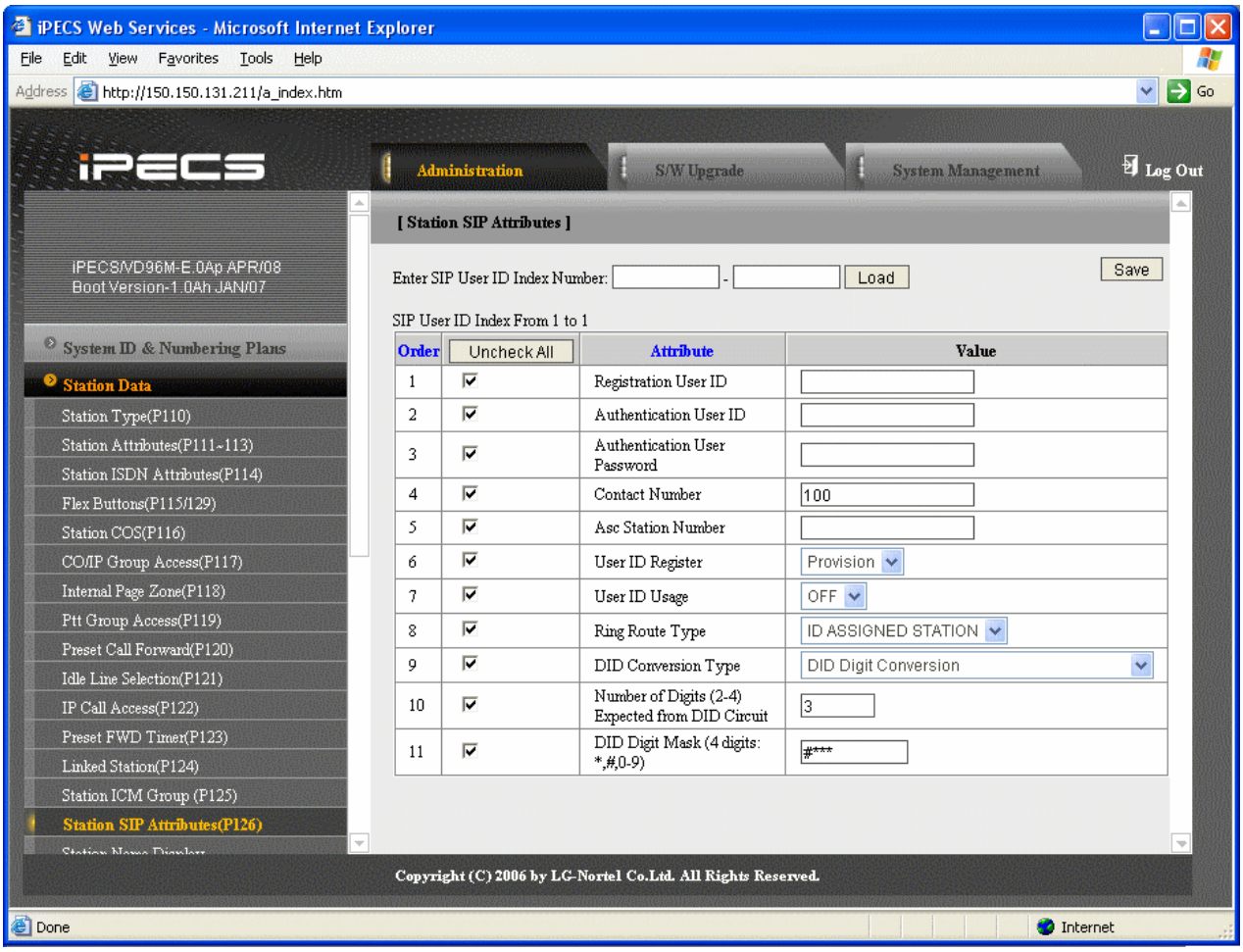


Figure 3.5.2.15-1 Station SIP Attributes 2

For each station, an index to the Station SIP Attributes 2 Table is defined in **PGM CODE 111** Station Attributes. The Station SIP Attributes 2 Table defines SIP characteristics associated with the index including User ID, Authentication name, etc. These characteristics are required for proper operation of the system and registration of the iPECS phones when employed with SIP trunking. See also, **PGM CODE** 133. Note **PGM CODE** 126 and **PGM CODE** 133 are accessible only via Web Admin.

Table 3.5.2.15-1 STATION SIP ATTRIBUTES 2

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Register User Name	User ID.	40 characters	
Authentication User Name	Authentication name assigned in SIP Proxy when required for registration.	40 characters	
Authentication User Password	User password as assigned in SIP Proxy when required for registration.	18 digits	
Contact Number	SIP URL or AOR consisting of the user name and the host domain name or IP address (me@abcco.com).		
Asc Station Number	This field assigns a station to receive incoming calls for the User ID index when "ID Assigned Station" is defined as the Ring Route Type below. In addition this station will receive messages resulting from the SIP Notify method to the iPECS VoIP channels, such as Msg wait, Line busy, etc.	Station number	
User ID Register	In some situations such as during provisioning of the SIP Server or Proxy, it may be desirable not to attempt registration. This field may be used to determine if registration should occur.	Register Provision	Register
User ID Usage	If registration is enabled (User ID Register above) the iPECS SIP gateway (VoIP channels) can send the User ID to the SIP Proxy to register the ID. Otherwise, the Authentication Name and password are used.	ON/OFF	OFF
Ring Route Type	Incoming calls from a SIP trunk can be routed based on CO/IP Ring assignments (**PGM CODE** 144), routed to the defined Associated station above (ID Assigned Station) or DID treatment (defined below)	ID Assigned Sta, Ring Assign, DID Conversion	ID assigned Station
DID Conversion Type	When the Ring Route above is defined as DID, the system will send the call to a destination based on the DID conversion selected here. The digits may be used as is to identify the desired station, modified based on the DID Digit mask below and routed to the resulting station or the modified DID number can be used as an index to the DID routing table, **PGM CODE** 231 to route the call.	DID Digit Conversion, Use "as is" or Use Flex DID Table	
Number of Digits (2-4) Expected from DID Circuit	When DID Digit Conversion or Flexible DID Conversion Table routing is used, the number of digits received is defined in this field.	2-4	3
DID Digit Mask (4digits: *,#,0-9	When DID Digit Conversion or Flexible DID Conversion Table routing is used, the digit conversion is defined in this field.		#***

3.5.2.16 Station Name Display

Selecting Station Name Display will display the Station Name input page, Figure 3.5.2.16-1. Selecting the blue colored text in the Table header will sort the table based on the selected column. The name can be up to 12-characters.

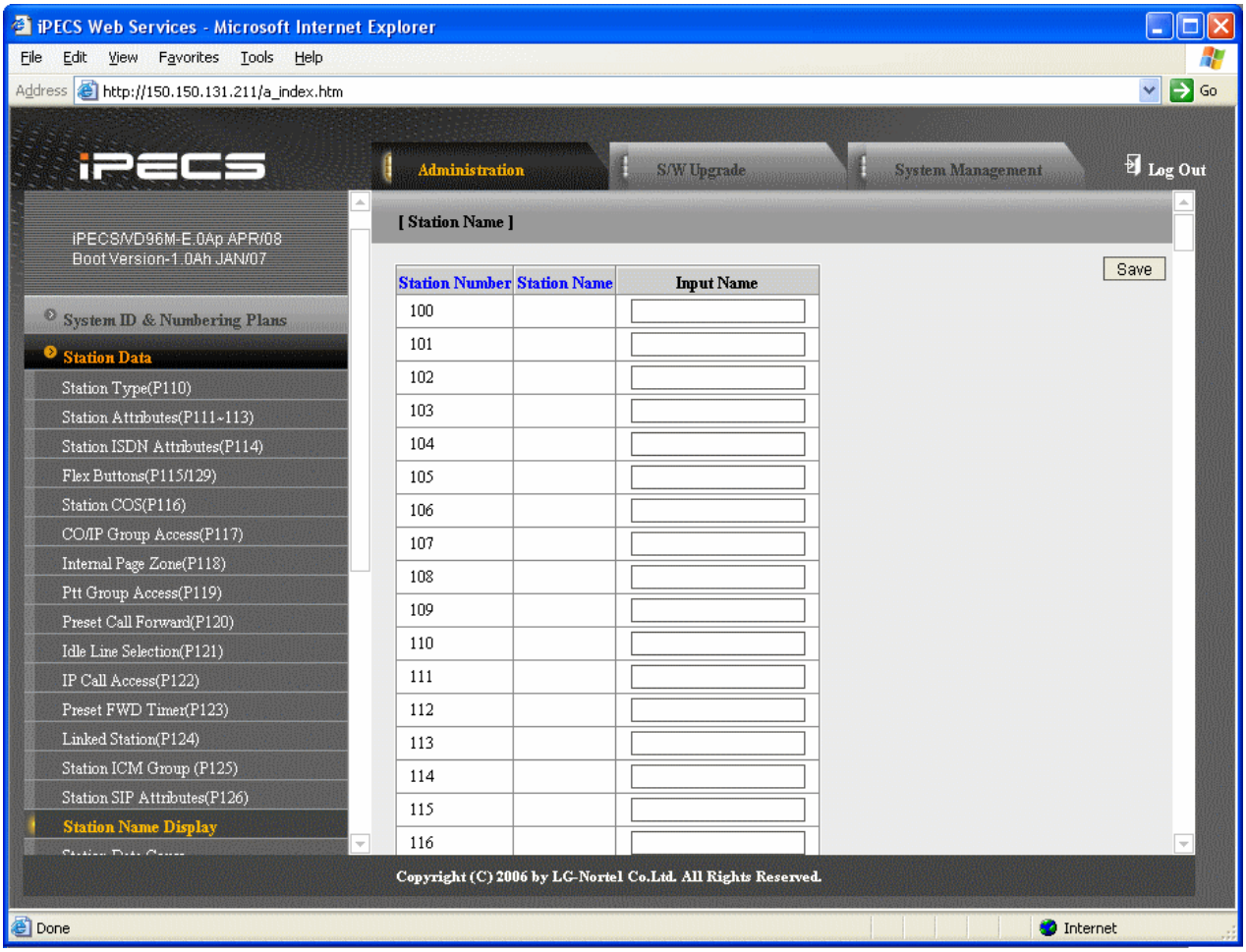


Figure 3.5.2.16-1 Station Name Display

3.5.2.17 Station Copy

Selecting Station Data Copy will display the Station Data Copy data input page, Figure 3.5.2.17-1. Enter a valid Source Station, Destination Station Range and click Copy to copy the station data. Note that this function is not available for an Attendant station.

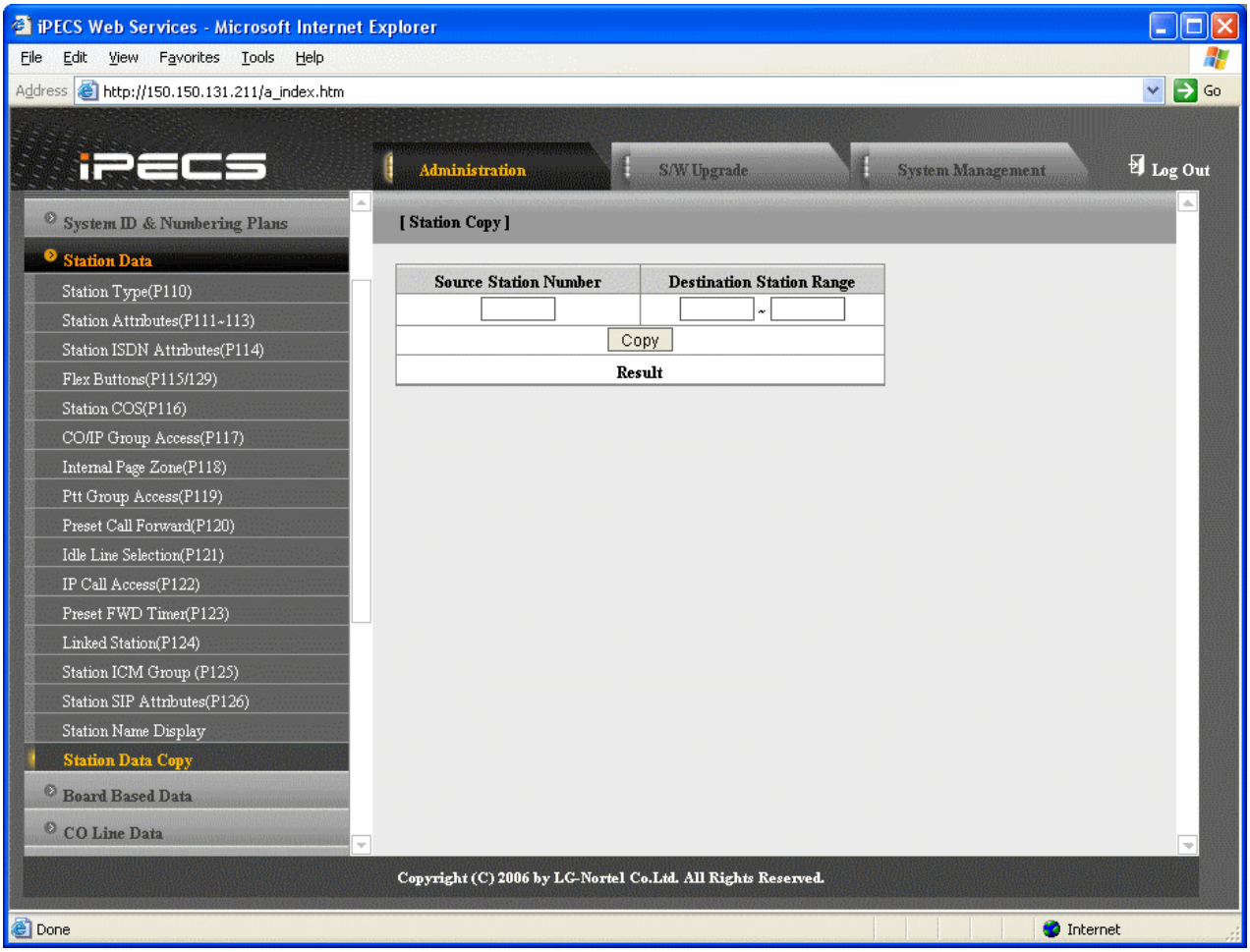


Figure 3.5.2.17-1 Station Copy

3.5.3 Board (gateway Module) Data

Selecting the Board (gateway Module) Data program group returns the sub-menu displayed in Figure 3.5.3-1.

Figure 3.5.3-1 Board Data

3.5.3.1 H323 VoIP Attributes

Re: **PGM CODE** 130

Selecting H.323 VoIP Attributes returns the H.323 VoIP Attributes data input page, Figure 3.5.3.1-1. Enter the Gateway Sequence number (refer to section 3.5.1.3) and click Load to enter VoIP data.

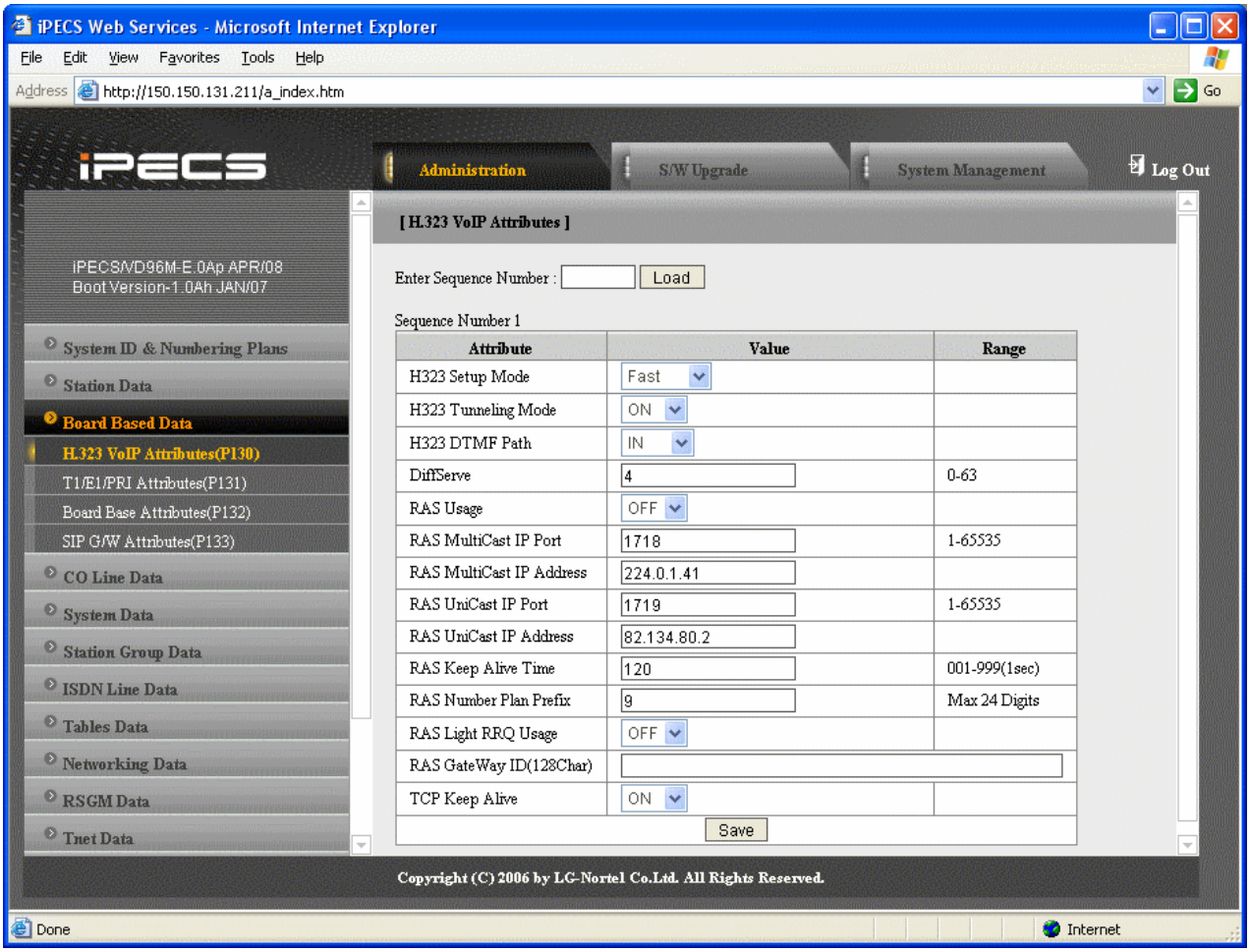


Figure 3.5.3.1-1 H323 VoIP Attributes

Except for the MFIM600/MFIM1200, MFIMs incorporate a 6-channel VoIP gateway. The optional VOIM8 provides up to 8 VoIP channels and the VOIM24 provides up to 24 VOIP channels. These VOIP channels are used for Distributed Networking, access to SIP or H.323 networks and for remote iPECS devices. When the standard a H.323 VoIP protocol is employed for an external VoIP call, several attributes of these channels can be assigned. The H.323 call set-up mode and tunneling (H.245 Encapsulation) can be established.

Also for H.323 support, a RAS (Registration, Admissions and Status) channel can be defined. The RAS channel IP addresses (uni-cast and multi-cast) as well as the IP port Numbering Plan and other H.323 set-up characteristics are defined.

This page also allows setting the IP TOS bit for Diffserv, a commonly recognized packet

prioritization protocol. Higher priority packets are given priority in the Router or Layer 3 Switch queue. However, they are the first to be discarded in the event of long queue delays, which may cause excess packet loss and poor voice quality.

Refer to Table 3.5.3.1-1 for a description of the features and the input required.

Table 3.5.3.1-1 H.323 VOIP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
H323 VOIP Setup Mode	IP calls can be set-up using the H.323 normal or Fast Start mode.	Normal/ Fast	Normal
H323 Tunneling Mode	IP calls can be set-up using the H.245 encapsulation (Tunneling).	On/Off	Off
H323 DTMF Path	During a call, DTMF can be send in-band or out-of-band (H.245)	1: Outband 0: Inband	Out for Voip In for VOIM
(0-63) DIFFSERV	DiffServ pre-tagging for Voice packet. Note high values may cause high packet discard levels.	0~63	4
RAS Usage	Determine whether VOIM (VOIP) Gateway will be used as a GateKeeper.	1: On 0: Off	Off
RAS Multi-cast IP Address	Multi-cast IP address for RAS Information of Gatekeeper.	IP Address	224.0.1.41
RAS Multicast IP Port	Multi-cast IP Port for RAS Information of GateKeeper.	IP Port #	1718
RAS Unicast IP Address	Uni-cast IP address for RAS Information of GateKeeper.	IP Address	82.134.80.2
RAS Unicast IP Port	Uni-cast IP Port for RAS Information of GateKeeper.	IP Port #	1719
RAS Keep Alive Time	The time between exchange of RAS Information between GK and VoIP channel	001-999 (seconds)	120
RAS Calling Number	The numbering plan for Calling Number in RAS Setup	Number (24 digits)	.
RAS Gateway ID	The GateKeeper ID	128 Character	
RAS Light RRQ Usage	The system can be assigned to use the simple RRQ (Registration Request) message (ON) or the full RRQ message (OFF).	1: On 0: Off	OFF
TCP Keep-Alive	The system will send a polling message every 75 seconds to assure the status of the TCP connection.	1: On 0: Off	ON

3.5.3.2 T1/PRI Attributes

Re: **PGM CODE** 131

Selecting T1/PRI Attributes returns the T1/PRI Attributes data input page, Figure 3.5.3.2-1. Enter the Gateway Sequence number (refer to section 3.5.1.3) and click Load to enter T1/PRI data.

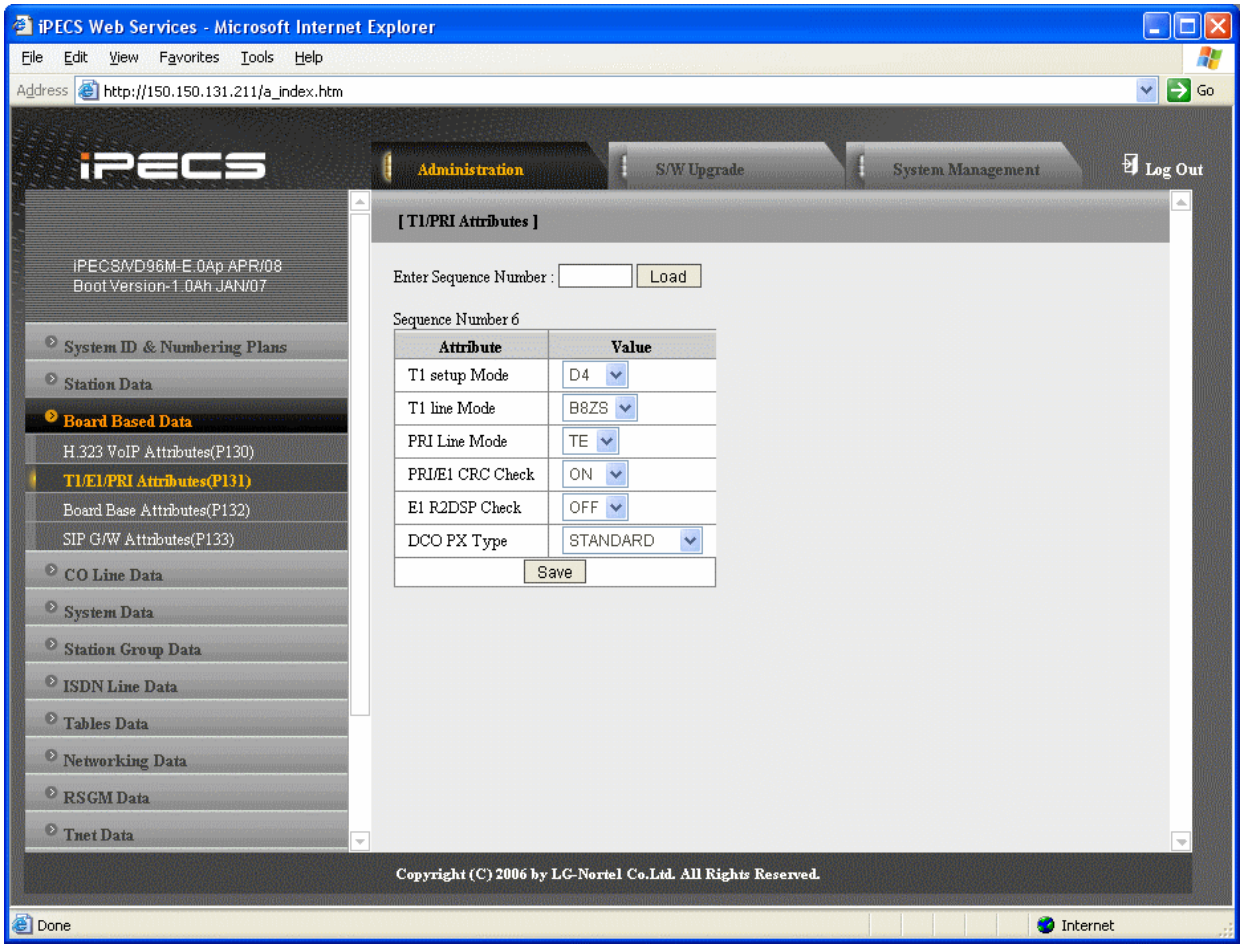


Figure 3.5.3.2-1 T1/PRI Attributes

Each T1/PRI module can be assigned for various attributes of the interface. The T1 interface framing and line coding can be selected and, for the PRI, TE or NT operation can be selected. Refer to Table 3.5.3.2-1 for a description of the features and the input required.

Table 3.5.3.2-1 T1/PRI ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
T1 Setup Mode	Select T1 Setup mode D4 frame: Using In-Band Control Protocol. ESF: Using Data link Message.	1:ESF 0:D4	D4
T1 Line Mode	Select T1 line coding (AMI/B8ZS)	1:AMI/0:B8ZS	B8ZS
PRI Line Mode	Select TE/NT Mode	TE/NT	TE
PRI /E1 CRC Check	Enable CRC (Cyclical Redundancy Check)	ON/OFF	ON
E1 R2DSP check	Used for R2-E1 Gateway or E1 Gateway	ON/OFF	ON
DCO PX Type	Reserved for future usage for R2 E1 Gateway	1: S1240/2: TDX1B 3: STANDARD 4: CONGES_DIS	STANDARD

3.5.3.3 Board Base Attributes

Re: **PGM CODE** 132

Selecting Board Base Attributes returns the Board Base Attributes data input page, Figure 3.5.3.3-1. Enter the Sequence Range (refer to section 3.5.1.3) and click Load to enter attribute values.

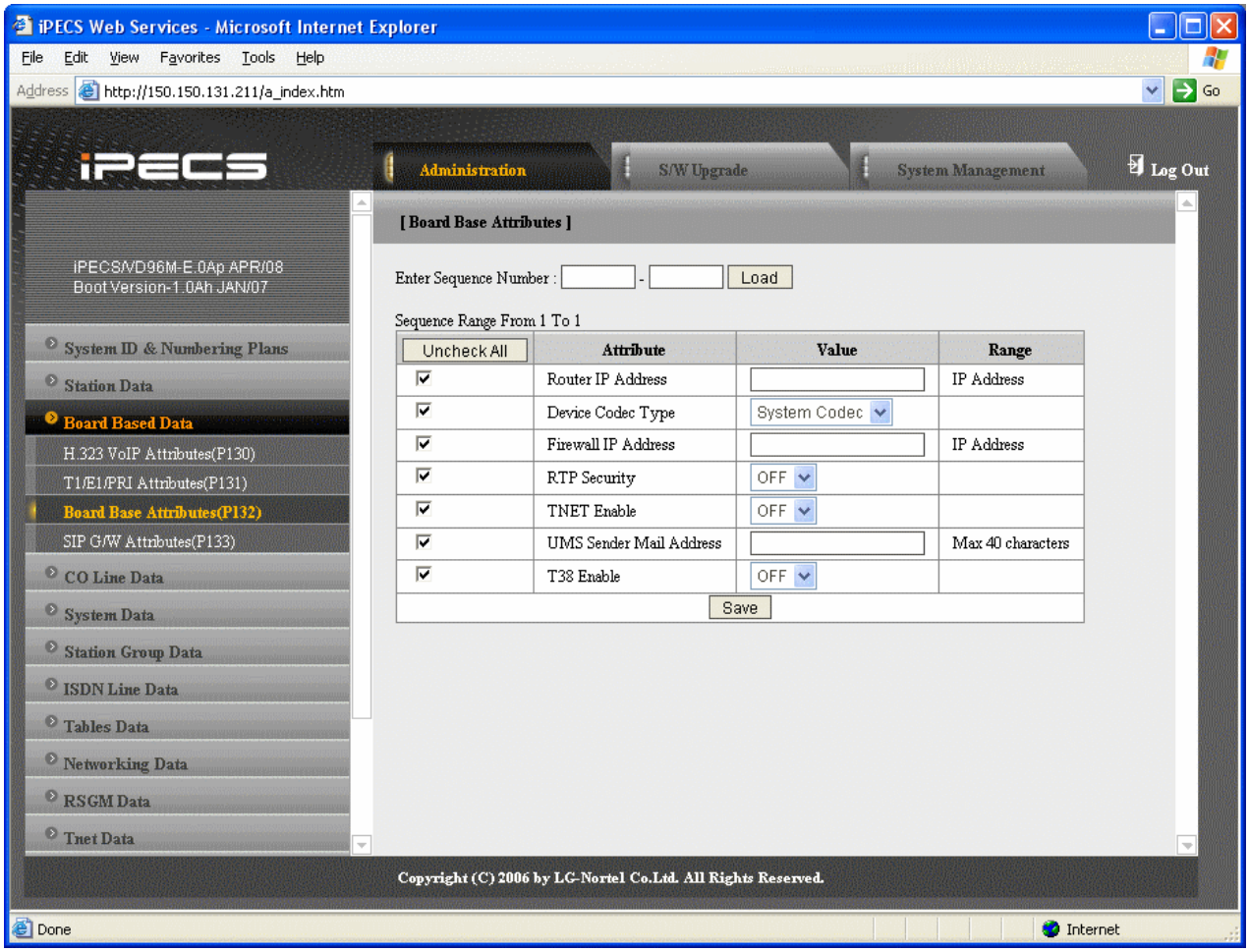


Figure 3.5.3.3-1 Board Base Attributes

Appliances (gateway Modules and IP Phones) can be connected to the iPECS over a managed WAN without the need to employ a VoIP channel. In this case, the system does not implement security (IPSec) or QoS treatment over the link. To implement the managed WAN connectivity, the iPECS must be assigned with the IP address of the router for all appliances that may attempt a point-to-point connection over the managed WAN, including devices on the iPECS LAN. Note that if the device's Router IP address is not defined, the system will use the Router IP address defined in System & Device IP Address Plan.

The default codec employed by each device can be specifically defined as G.711, G.729, G.723, G.722, or the system default codec assigned in section 3.5.5.1.

Modules introduced with iPECS phase 4 include support for SRTP (Secure Real-Time Protocol), which employs Advanced Encryption Standard (AES) to secure RTP packets. When the module sends RTP packets to other phase 4 modules, SRTP is implemented if enabled.

When a device is part of a Central Control TNET, it must be enabled for TNET operation.

Table 3.5.3.3-1 BOARD BASE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Router IP Address	Enter the Default Gateway (Router) IP address associated with the selected devices.	IP Address	
Device Codec Type	Select CODEC type for each device	G.711, G.723.1, G.729, G.722, or SYSTEM CODEC	SYSTEM CODEC
Firewall IP Address	Enter the Firewall IP address of the selected devices.		0.0.0.0
RTP Security	SRTP implements AES (Advanced Encryption Standard) for packets between other devices with RTP Security enabled.	ON/OFF	ON
TNET Enable	When a module or station is to be connected in a Centralized Control network (TNET), the device must be enabled for TNET operation.	ON/OFF	OFF
UMS Sender Mail Address	VSF/VMIM e-mail address for sending voice mails as e-mail.	Max 40 characters	
T38 Enable	T38 mode ON/OFF for FAX data transfer between other iPECS gateways	ON/OFF	OFF

3.5.3.4 SIP Gateway Attributes

Selecting SIP Attributes returns the SIP Gateway Attributes data input page, Figure 3.5.3.4-1. Enter the Sequence Range (refer to section 3.5.1.3) and click Load to enter attribute values.

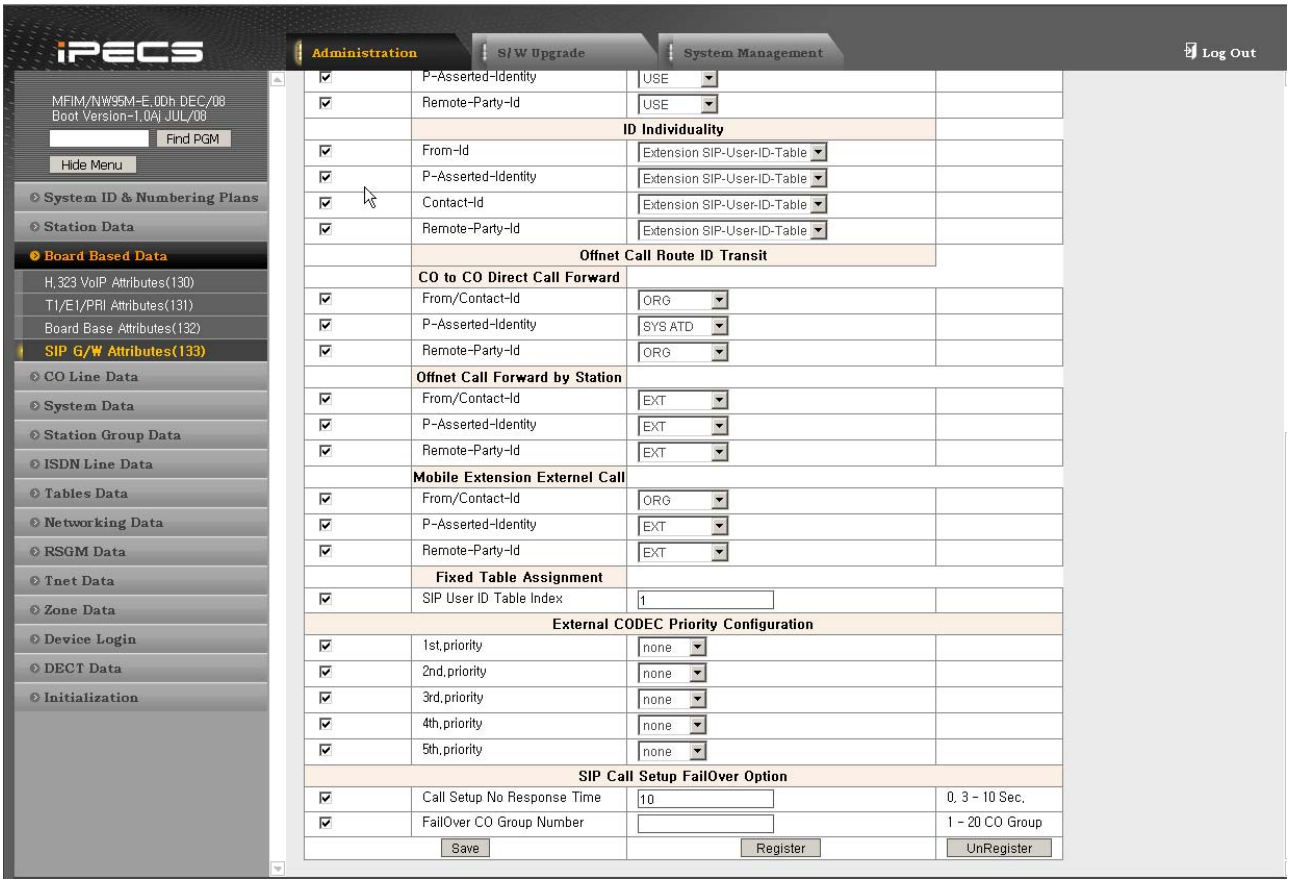


Figure 3.5.3.4-1 SIP Gateway Base Attributes

Various parameters must be entered for proper operation of SIP Trunking including the SIP proxy and Registrar as outlined in Table 3.5.3.4-1.

Table 3.5.3.4-1 SIP GATEWAY ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Soft Switch Type	Allows identification of soft-switch to support extended soft-switch capabilities. KT, SK TELINK : Service Provider	Broadsoft Normal KT SK TELINK	Normal
Proxy Server Address	SIP Proxy server IP address	IP address	
Primary DNS	Domain Name Server	Max 32 Characters	
Secondary DNS	2nd (back-up) DNS	Max 32 Characters	

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Use Outbound Proxy	The SIP module will communicate only to SIP Proxy Server. In this case, destination address of all communication will be the IP of SIP Proxy Server. Use Outbound Proxy flag should be 'OFF' when you use that SIP module for channels of 3rd-party SIP Extensions.	ON/OFF	ON
Connection Mode	This field establishes the SIP connection mode as TCP (ON) or UDP (OFF) for SIP signaling messages	ON/OFF	OFF
Caller Name Service	Provide and Display of Name Field Data	NOT USE / USE	USE
181 Being Forwarded	SIP 181 message is sent when call is being redirected or forwarded, if enabled.	NOT USE/USE	NOT USE
100rel support	Provisional messages, Ack for provisional messages	ON/OFF	OFF
Use single codec only	During capabilities negotiation, the system can send a single codec id or all codes supported.	ON/OFF	OFF
Use rport method	When employed behind a NAPT server, device will add Rport header in SIP message to indicate port in use.	ON/OFF	OFF
Domain	Domain name associated with iPECS VOIM channels. Is used in SIP “TO: header message” to SIP Server. Required when the Proxy uses a port other than 5060.	Max 32 Characters	
Invite Acceptance	Allow invite message from domain or anywhere	Domain Only From All	From All
Contact Address Domain	Contact Address Domain part option. Address of SIP gateway’ or (Server) Domain is used	SIP GW Addr Server Domain	SIP GW Addr
P-Asserted-Identity	Address and Tel number of Caller		
Proxy Registration Timer	Time-out for registration		
Proxy Server Port	Default port for SIP messages to proxy	Port	5060
Registration UID Range	Defines the range of User IDs from Station SIP Attributes 2 to register with the SIP Registrar Server.	UID Table index (000-150)	
DTMF Type	DTMF sending mode	INBAND 2833 INFO (DTMF) INFO (DTMF RELAY) INFO(TELEPHONE EVENT) INFO(NORTEL NETWORKS)	INBAND

1) RPID (Remote-Party-ID)
<ID Usage>
Not Use
Use
<ID Individuality>
Extension SIP-User-ID-Table : Get ID from Station SIP User ID Tbale Index (PGM111, PGM126)
Extension Outgoing-CLI : Get ID from Station ISDN Outgoing CLI (PGM114, PGM143)
2) PAI (P-Asserted-Identity)
<ID Usage>
Not Use
Use
<ID Individuality>
Extension SIP-User-ID-Table : Get ID from Station SIP User ID Tbale Index (PGM111, PGM126)
Extension Outgoing-CLI : Get ID from Station ISDN Outgoing CLI (PGM114, PGM143)
Authorized Representative ID : Get ID from 'Authorized Representative ID Table Index' of SIP User ID Table *** This is utilized when, 1. Single registration and authentication via [P-Asserted-Identity] field and multiple Individual telephone number in From ID field. 2. This is determined by programming of Softswitch on SIP Service Provider side. ie) one representative ID is input in SIP User ID Table #01 with Registration ON, ID Usage ON – this is used when registration and [PAI] field of every call setup. multiple ID are input in SIP User ID Table #02 to #xx with Registration OFF, ID Usage ON – this is used for [From] field of every call setup. In this case, PAI is always same as single registration ID for authentication. From and To field is individual
3) From ID
<ID Individuality>
Extension SIP-User-ID-Table : Get ID from Station SIP User ID Tbale Index (PGM111, PGM126)
Extension Outgoing-CLI : Get ID from Station ISDN Outgoing CLI (PGM114, PGM143)
Authorized Representative ID : Get ID from 'Authorized Representative ID Table Index' of SIP User ID Table *** This is utilized when, 1. Single registration and authentication via [From] ID field and multiple Individual telephone number in P-Asserted-Identity or Remote-Party-ID field. 2. This is determined by programming of Softswitch on SIP Service Provider side. ie) one representative ID is input in SIP User ID Table #01 with Registration ON, ID Usage ON – this is used when registration and [From] field of every call setup. multiple ID are input in SIP User ID Table #02 to #xx with Registration OFF, ID Usage ON – this is used for [PAI] or [RPID] field of every call setup. In this case, From ID is always same as single registration ID for authentication. PAI or RPID and To field is
4) Contact ID
<ID Individuality>
Extension SIP-User-ID-Table : Get ID from Station SIP User ID Tbale Index (PGM111, PGM126)
Extension Outgoing-CLI : Get ID from Station ISDN Outgoing CLI (PGM114, PGM143)

<ID Transit – From/Contact, PAI, RPID> Utilization Option
<CO to Offnet Direct Call Route>
EXT or SYS ATD : Get ID from [call forward, mobile, or system attendant extension' <ID Individuality> option]
ORG : Get ID from [original caller number] if the original caller is an external caller Get ID from [original caller' <ID Individuality> option] if the original caller is an extension
Fixed Table : Get ID from [assigned SIP user ID Table]
<Offnet Call Forward by Station>
EXT or SYS ATD : Get ID from [call forward, mobile, or system attendant extension' <ID Individuality> option]
ORG : Get ID from [original caller number] if the original caller is an external caller Get ID from [original caller' <ID Individuality> option] if the original caller is an extension
Fixed Table : Get ID from [assigned SIP user ID Table]
<Mobile Extension Externel Call>
EXT or SYS ATD : Get ID from [call forward, mobile, or system attendant extension' <ID Individuality> option]
ORG : Get ID from [original caller number] if the original caller is an external caller Get ID from [original caller' <ID Individuality> option] if the original caller is an extension
Fixed Table : Get ID from [assigned SIP user ID Table]

Case 1. Simple Extension Outgoing CO Call : An Extension user graps SIP CO line and dial out. In this case, RPID is generated by <ID Individuality> option
Case 2. CO to CO Direct Call Forward : Incoming CO call is forwarded to external CO by [CO-to-CO Call Forward] or [Call Route to System Speed] In this case, RPID is generated by <CO to Offnet Direct Call Route> option
Case 3. Extension or Incoming CO Call is Forwarded to Offnet via Station : A station is call forwarded to external. Extension or incoming CO call is routed to the station. And then the call is forwarded to external. In this case, RPID is decided by <Offnet Call Forward by Station> option
Case 4. Extension or Incoming CO Call is Routed External Mobile Extensior Extension or incoming CO call is routed to a mobile station' external extension. In this case, RPID is decided by <Mobile Extension Externel Call> option

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
External CODEC Priority Configuration	1st . priority 2nd. priority 3rd priority 4th. priority 5th. Priority 1) If speficy priority to a specific CODEC then it will work for negotiation RTP data. 2) If only 1st. priority is specified and the others are none, then it will work as single CODEC only does.	none g.711-u g.711-a g.723.1 g.729 g.729-a	none
SIP Call Setup FailOver	Call Setup No Response : 0 If there is no response received during this time after send call setup, then it will release the CO line and try the call setup again via one of FailOver CO Group CO line.	0 ~ 10 sec	0 sec
	FailOver CO Group Number	1 ~ Max Number of CO Group	none

3.5.4 CO Line Data

Selecting the CO Line Data program group returns the sub-menu displayed in Figure 3.5.4-1.

Figure 3.5.4-1 CO Line Data

3.5.4.1 CO/IP Attributes

Re: **PGM CODES** 140 ~ 142

Selecting CO/IP Attributes will display the CO/IP Attributes data input page, Figure 3.5.4.1-1. Enter a valid CO range and click Load to enter the CO/IP Attributes data.

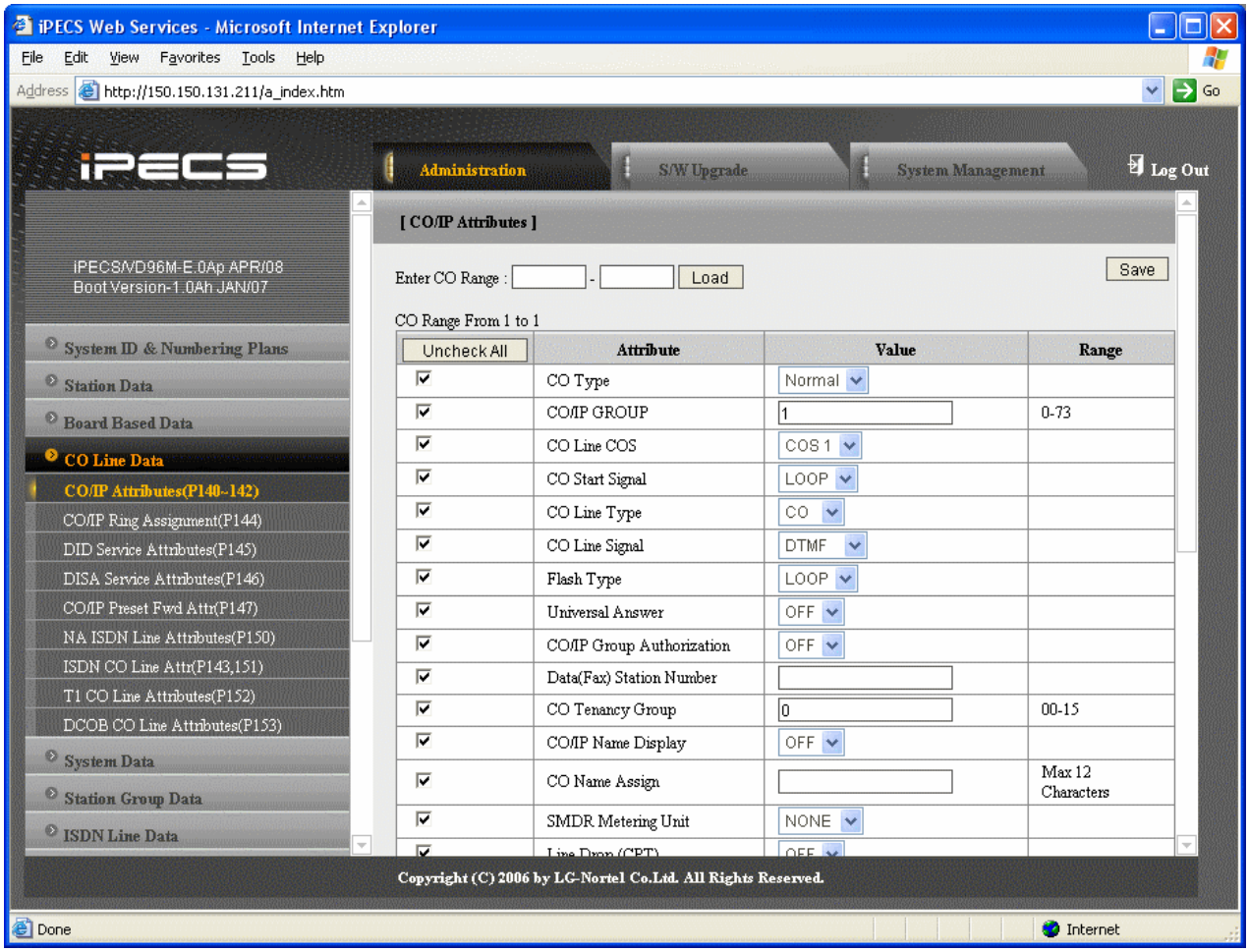


Figure 3.5.4.1-1 CO/IP Line Attributes

CO/IP Attributes define various characteristics of CO lines and IP facilities under control of the system. Most characteristics require an On/Off setting; refer to Table 3.5.4.1-1. Specific descriptions for Class-of-Service and CO line Call Metering tones are provided in Table 3.5.4.1-2 and Table 3.5.4.1-3 respectively.

Table 3.5.4.1-1CO/IP LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Type	Each CO Line is assigned a type, Normal, DID or TIE Line.	1:Normal 2: DID 3:TIE	Normal

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Line GROUP	Each CO/IP Line is assigned to a group; grouping should be based on the Line type and COS.	iPECS-Micro & iPECS-50 & MFIM100 0~21 Other MFIMs 0-73	01
CO Line COS	Each CO Line is assigned a Class-of-Service which will interact with the Station COS, refer to Table 3.5.4.1-2 - CO COS 1: Station COS applies - CO COS 2: Exception Table A governs - CO COS 3: Exception Table B governs - CO COS 4: Restricts LD calls and Exception Table C - CO COS 5: Overrides Station COS 2~6 with no restrictions.	1~5	1
CO Start Signal	The system can recognize a loop closure or a ground as the “connect” (start) signal on an analogue CO Line.	GND LOOP	LOOP
CO Line Type	Each CO Line can be assigned as connected to a CO Line or a PBX/CTX Line.	PBX CO	CO
CO Line Signal	Each analogue CO Line can be assigned to send either DTMF or Pulses for dialed digits to the PSTN.	DTMF Pulse	DTMF
Flash Type	Analogue CO Lines can generate either an Open Loop or a momentary ground connection as the FLASH signal.	GRD LOOP	LOOP
Universal Night Answer	Universal Night Answer (UNA) allows any station user to answer a call on the CO/IP line by dialing the UNA code.	ON OFF	OFF
CO/IP Group Authorization	Each CO/IP Group can be assigned to require the user enter an Authorization Code.	ON OFF	OFF
Data(Fax) Station Number	Each CO/IP line can be assigned to recognize a FAX call when a specified station answers.	Station Number	
CO Tenancy Group	Only stations in the assigned Tenancy group are permitted access to the defined CO Line.	00-15	0
CO/IP Name Display	The IP Phone display can indicate the CO line/IP channel number or the twelve (12) character name, if assigned	ON OFF	OFF
CO Name Assign	Each CO Line and IP group can be assigned a twelve (12)-character name for display purposes.	12 characters	
SMDR Metering Unit	Selects the call-metering signal from the PSTN to indicate call cost, refer to Table 3.5.4.1-3.	See Table 3.5.4.1-3	None
Line Drop (CPT)	Each CO Line can be programmed to disconnect if a second dial tone is detected. (Not Support)	ON OFF	OFF
DISA Account Code	With DISA Account Code “ON”, users are required to enter a DISA Authorization code. Codes are entered in the Authorization Code Table, section 3.5.8.7.	ON OFF	ON
CO Line MOH	A held call can be connected to one (1) of four (4) possible audio sources while on Hold as Music-on-Hold (MOH).	None Refer to Sys Hold Int/Ext 1 Ext 2 VSF MOH	Int/Ext 1
CO Dial Tone	ISDN Lines may provide a digital signal rather than actual tones. In this case, the iPECS can provide the tones. If the ISDN provides the tone, the Tone is “ON”, for an iPECS system-generated tone, the tone is set to “OFF”.	ON OFF	ON
CO Ring Back Tone		ON OFF	OFF
CO Error Tone		ON OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Busy Tone		ON OFF	OFF
DISA IP Access	Permits DISA users access to the VoIP facilities of the system	ON OFF	OFF
Flash Timer	This entry sets the duration of a Flash on the CO Line.	(000-300) 10 msec	050 500 msec
Open Loop	This entry sets the duration of open loop that will be recognized as a “Disconnect Signal”.	(00-20)* 100 msec	04
ICLID Ring Timer	When a call is received, the system may use ICLID (Incoming Caller ID) to route the call. The system will delay routing a call for this timer duration while awaiting ICLID. Enter a 00 to disable ICLID routing.	(00-20)* sec	00
CO VoIP Mode	The VoIP channels can support iPECS, H.323 or SIP protocols. This field defines the protocol for the VoIP channel(s).	COMMON H323 SIP	COMMON
Wait If DVU Busy	When a DID/DISA call assigned to receive a VSF/VMIM announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or route to the DID/DISA Destination -PGM Code 167-.	OFF ON	ON
CO Line Dial Tone Source	One of four dial tones can be used by the CO line: standard dial tone, music 1 MOH, music2 MOH, VSF MOH.	Dial Tone Int/Ext 1 Ext 2 VSF MOH	Dial Tone
CO Ring Back Tone Source	One of four ring back tones can be used by the CO line. standard ring tone, music 1 MOH, music2 MOH, VSF MOH.	Ring Back Tone Int/Ext 1 Ext 2 VSF MOH	Ring Back Tone
Proctor Service	Each analogue CO line can be assigned to send the station number as DTMF digits for Proctor service.	0: OFF 1: ON	OFF
SMS Outgoing	Each CO line can be assigned to support PSTN SMS.	0: Disable 1: Enable	Disable
SMS Received Station	When a PSTN SMS is received, the system delivers the message to the assigned station.	Station	….

Table 3.5.4.1-2 STATION/CO LINE TOLL RESTRICTIONS

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 1	No Restriction	No Restriction	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 2	Exception Table A governs the dialing	Exception Table A governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 3	Exception Table B governs the dialing	No Restriction	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 4	Exception Table A&B governs the dialing	Exception Table A governs the dialing	Exception Table B governs the dialing	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 5	Local Call only (LD Code, “1” or “0”) and Table C	Local Call only (LD Code “1” or “0”) and Table C	Local Call only (LD Code,“1” or “0”) and Table C	Only Local Call (LD code/counter) and Table C	No Restriction OS

	CO COS 1	CO COS 2	CO COS 3	CO COS 4	CO COS 5
STA COS 6	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 7	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only	In-house dialing only
STA COS 8	Exception Table D governs the dialing	Exception Table D governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 9	Exception Table E governs the dialing	Exception Table E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 10	Exception Table D&E governs the dialing	Exception Table D&E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction
STA COS 11	Exception Table A & B & D & E governs the dialing	Exception Table A & B & D & E governs the dialing	No Restriction	Only Local Call (LD code/counter) and Table C	No Restriction

Table 3.5.4.1-3 CALL METERING

ENTRY	CALL METERING TYPE
00	- None
01	- 50 Hz
02	- 12 KHz
03	- 16 KHz
04	- Singular Polarity Reverse (SPR)
05	- Plural Polarity Reverse (PPR)
06	- No Polarity Reverse (NPR)
07	- Advice of Charge-S
08	- Advice of Charge –1
09	- Advice of Charge –2
10	- Advice of Charge –3
11	- Advice of Charge –4

3.5.4.2 CO Ring Assignment

Re: **PGM CODE** 144

Selecting CO Ring Assignment will display the CO Ring Assignment data input page, Figure 3.5.4.2-1. Enter a valid CO range and click Load to enter the CO Ring Assignment data.

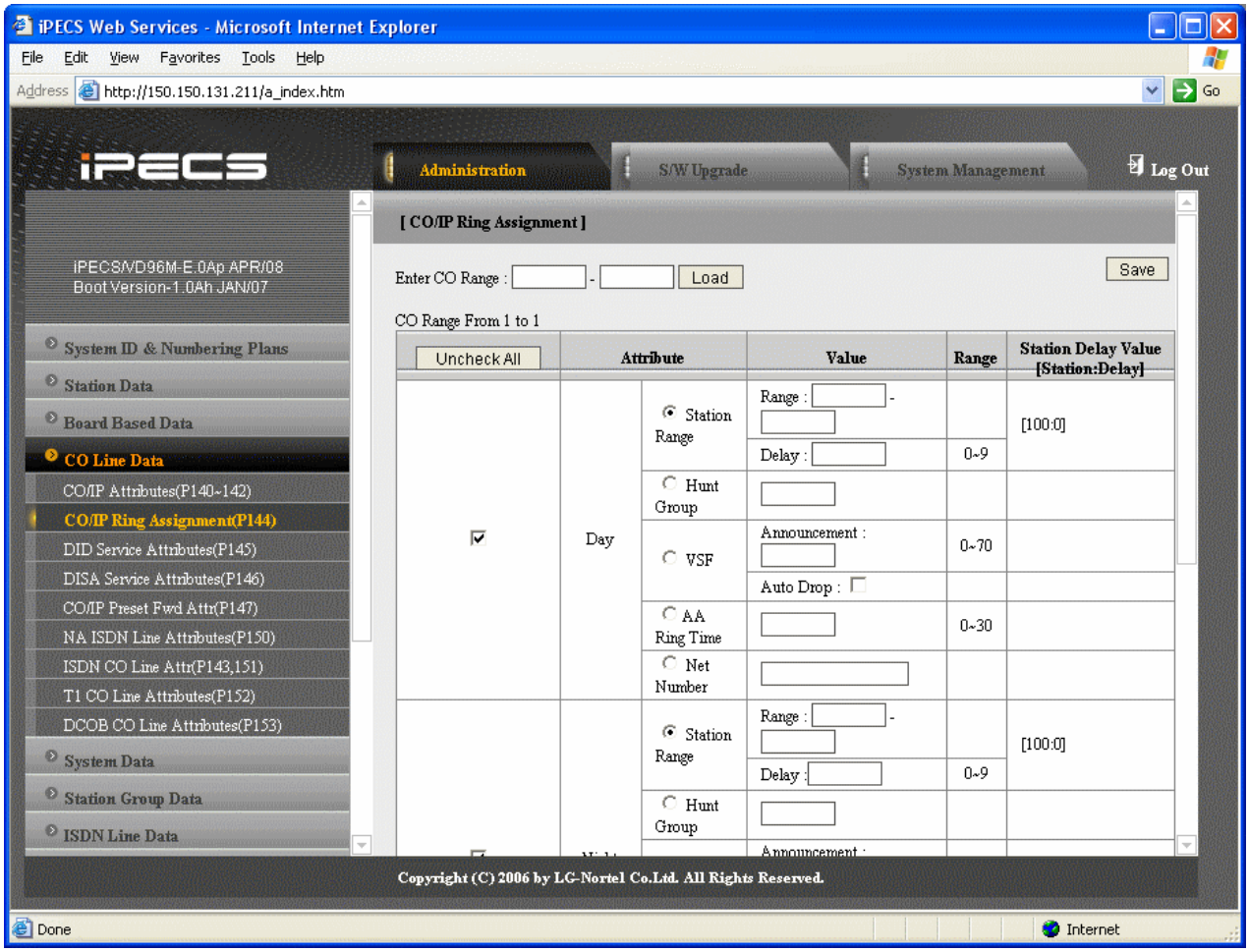


Figure 3.5.4.2-1 CO Ring Assignment

Each CO line is assigned to signal a station, station group or VSF Announcement for an incoming call (Ring). Separate ring assignments are made for Day, Night, and Timed Ring mode. A delay from 1 to 9 Ring cycles can also be assigned, based on this assignment, the station/Hunt group will receive audible ring after a delay of the number of Ring cycles entered. In addition, when assigned to ring a VSF Announcement, the system can be programmed to disconnect after the announcement, 'Auto Drop'.

When CO Lines are programmed to Ring an external AA/VM, VSF or Feature Server Group as an Automated Attendant, the signal can be on an immediate or delayed basis allowing stations/groups to be assigned Ring and answer prior to signaling the AA. The delay is defined in seconds from 00 to 30.

3.5.4.3 DID Service Attributes

Re: **PGM CODE** 145

Selecting DID Service Attributes will display the DID Service Attributes data input page, Figure 3.5.4.3-1. Enter a valid CO range and click Load to enter the DID Service Attributes data.

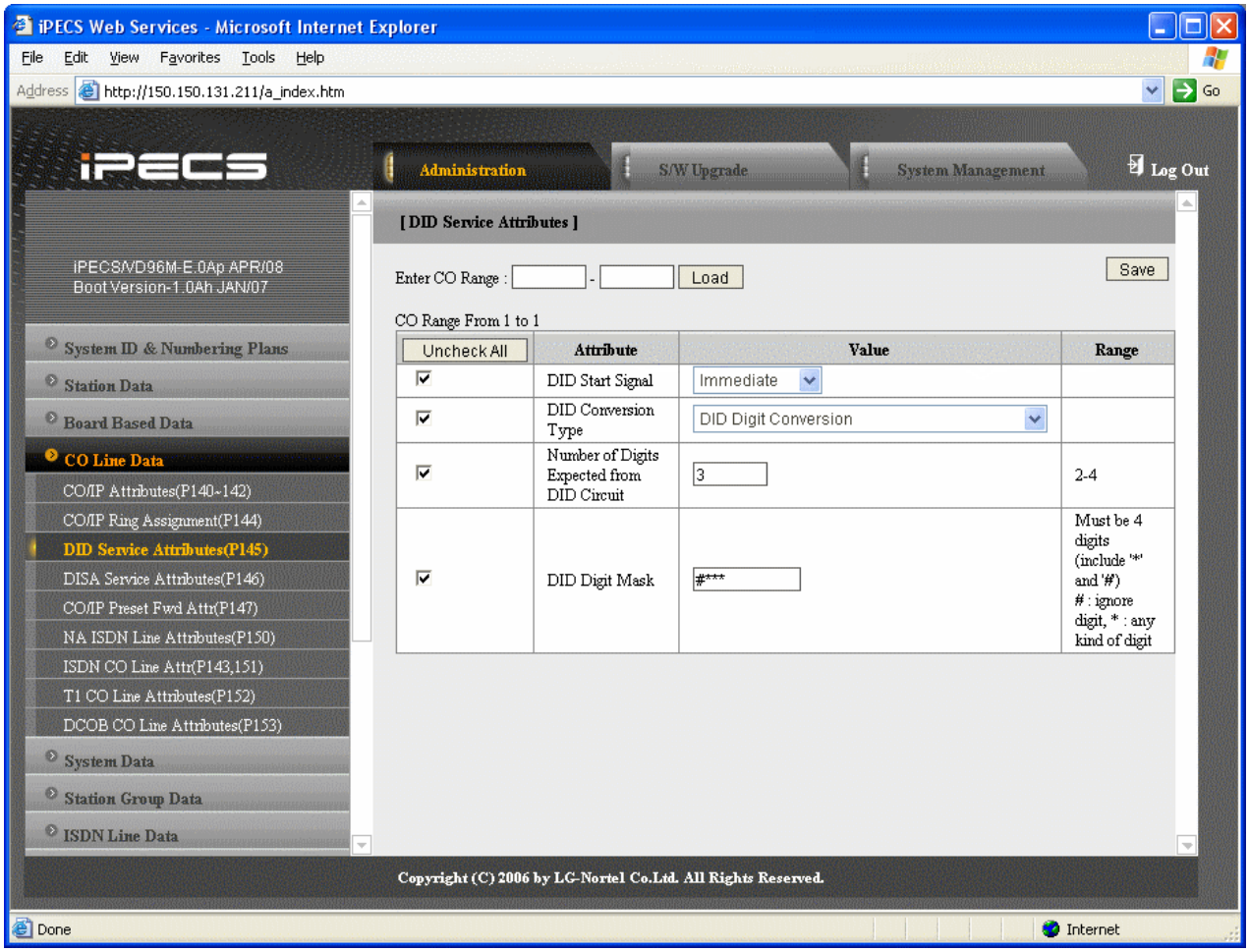


Figure 3.5.4.3-1 DID Service Attributes

DID lines can be assigned the type of “Start” signaling and treatment of received digits. Digits can be used “as is” to route the call within the system, digits can be converted and used to route the call (section 3.5.8.10), or digits can be converted to a Table index to determine the call routing from a Table look-up (section 3.5.8.10). Refer to Table 3.5.4.3-1 for additional description of attributes and values.

Table 3.5.4.3-1 DID SERVICE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
DID Start Signal	Assigns the type of DID start signaling, Immediate, Wink or Delayed.	Immediate Wink Delayed	Immediate

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
DID Conversion Type	The received DID digits can be treated to determine call routing, simple conversion (Convert), use “as is” (no treatment), or modify using Flexible DID Conversion Table (Look-up).	Convert Use as is Look-up	Convert
Number of Digits Expected from DID Circuit	Number of digits expected from the PSTN DID circuit. (In USA version, use Table in section 3.5.8.10)	2~4	3
DID Digit Mask	DID digit modification sequence: “#” deletes the digit, “*” accepts the digit “as is”, a digit (0~9) replaces the digit. The modification is based on the position of the digit (1~4) in the received number. (In USA version, use Table in section 3.5.8.10)	(0~9, *, #)	#***

3.5.4.4 DISA Service Attributes

Re: **PGM CODE** 146

Selecting DISA Service Attributes will display the DISA Service Attributes data input page, Figure 3.5.4.4-1. Enter a valid CO range and click Load to enter the DISA Service Attributes data.

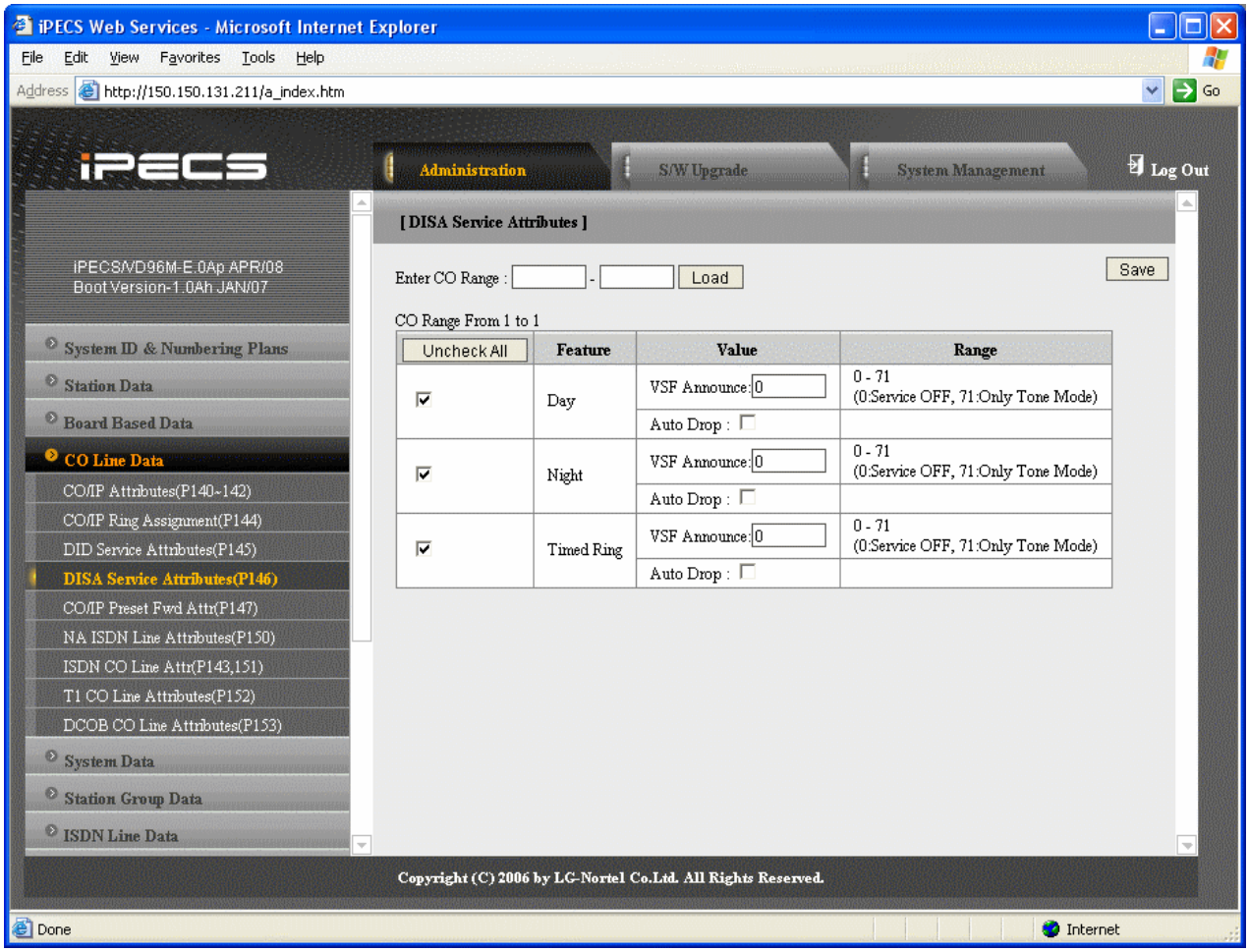


Figure 3.5.4.4-1 DISA Service Attributes

DISA Service can be enabled on CO lines based on the system operation mode (Day, Night, and Timed). DISA calls may be routed to dial tone and await user dialing (simple routing) or through a multi-layered Audio Text menu assigning a VSF AA Announcement and a Customer Call Route (CCR) Table Index. The system can be instructed to disconnect after the announcement, 'Auto Drop', or follow the CCR Table routing with a user-recorded announcement requesting specific inputs from the user.

3.5.4.5 CO/IP Preset Forward Attributes

Re: Station Admin **PGM CODE** 147

Selecting CO/IP Preset Forward Attributes will display the CO/IP Preset Forward Attributes data input page, Figure 3.5.4.5-1. Enter a valid CO range and click Load to enter the CO/IP Preset Forward Attributes data.

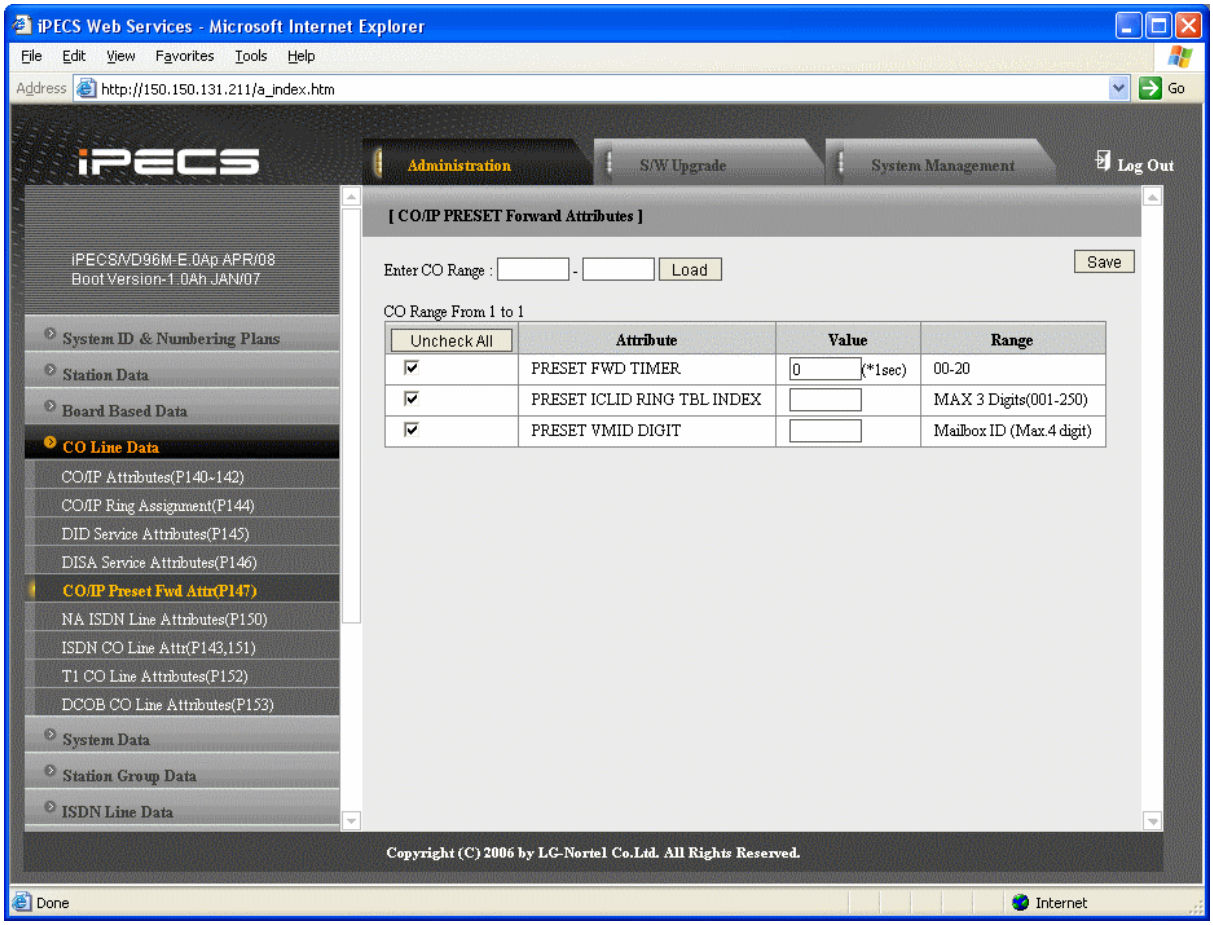


Figure 3.5.4.5-1 CO/IP Preset Forward Attributes

The CO/IP Preset Call Forward feature enables a CO line to initially ring at multiple stations and forward to a pre-determined destination. The destination can be a station, Voice Mailbox, ACD group, or Hunt group. Each CO line has a Preset Forward Timer. Each CO line also can be assigned a VMID field to allow sending of specific mailbox id digits when a CO line forwards to an external VM group.

Table 3.5.4.5-1 CO/IP PRESET FORWARD ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Preset FWD Timer	An incoming call, which remains unanswered for this timer, is routed as defined in the Ring Table Index of section 3.5.7.5.	00-20 Sec	00
Preset ICLID Ring Table Index	If an incoming call remains unanswered after the Preset Fwd time above, the call is routed as defined in the ICLID Ring Table index defined here, see section 3.5.7.5.	001-250	
Preset VMID Digit	Each CO/IP line can be assigned a VMID (Voice Mail Id) that is sent to the VM group to identify the desired Mailbox for the call.	Mailbox ID (Max 4 digits)	

3.5.4.6 NA ISDN Line Attributes

Re: **PGM CODE** 150

Selecting NA (North America) ISDN Line Attributes will display the NA ISDN Line Attributes data input page, Figure 3.5.4.6-1. Enter a valid CO range and click Load to enter the NA ISDN Line Attributes data.

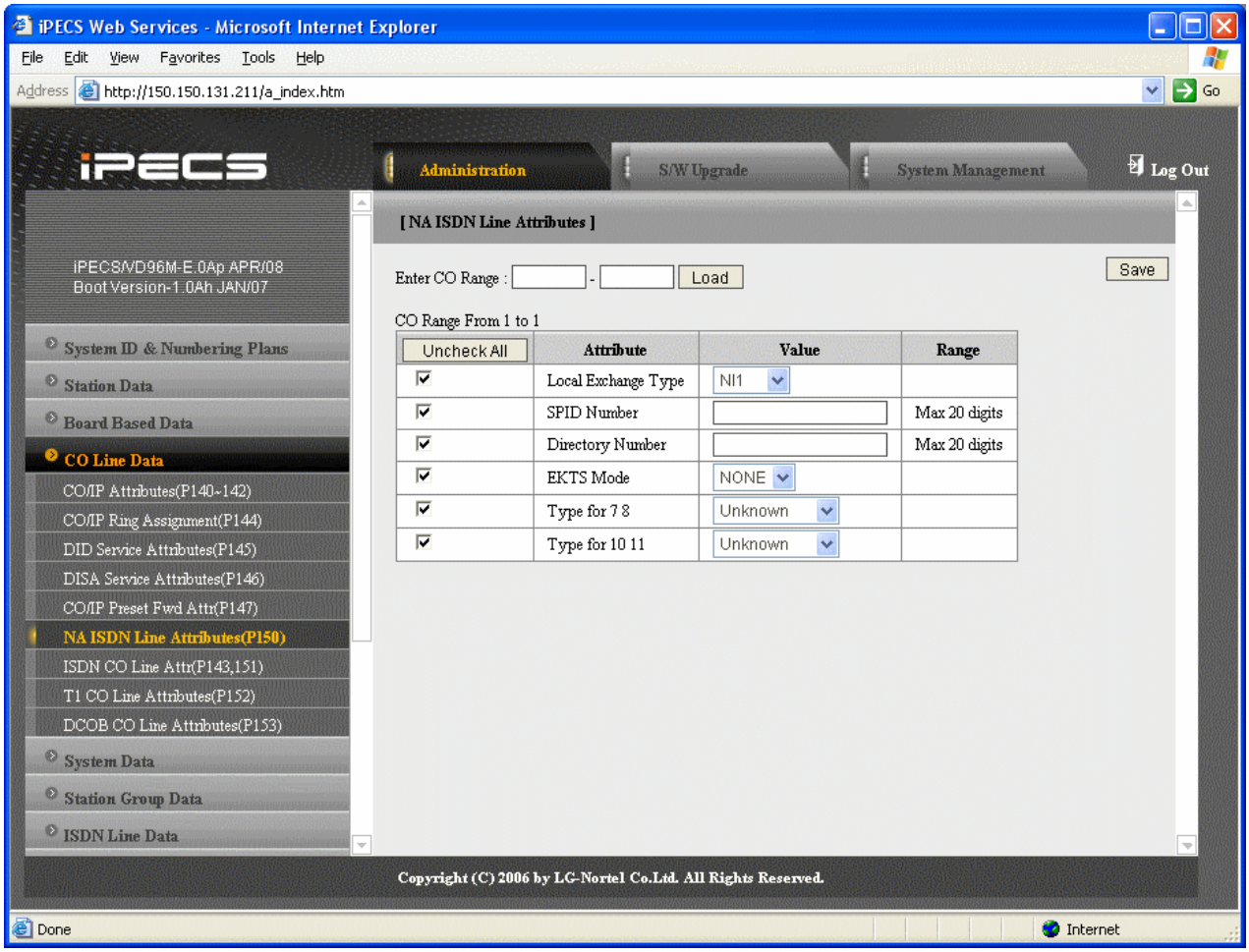


Figure 3.5.4.6-1 NA ISDN Line Attributes

To comply with the North American ISDN standards, certain attributes must be defined for the system. These include Directory (telephone) Number and Service Profile Id (SPID) for the device. Note that this programming is required only for “Country Code” 1, USA installations. Refer to Table 3.5.4.6-1 for information on individual attributes.

Table 3.5.4.6-1 NA ISDN LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Local Exchange Type	The type of PSTN determines several specifics of the protocol and is required for proper operation.	NI 1 NI 2 5 ESS Nortel	NI 1

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
SPID Number	The Service Profile Identifier (SPID) is a number assigned to a fully initializing ISDN terminal and enables the Stored Program Control switching System (SPCS) to identify the ISDN terminal at layer 3 of the D-channel signaling protocol. The SPID is a free-formatted numeric string composed of 9 to 20 numeric {0-9} International Alphabet (IA5) characters. The SPID uniquely identifies a particular set of subscription parameters assigned to a TSP.	20 digits	
Directory Number	Initializing terminals are required to store a 7-digit DN in order to perform the compatibility checking procedures that are part of call termination.	20 digits	
EKTS Mode	The EKTS (Electronic Key Telephone Service) terminal permits a user to operate those features that are specific to EKTS, as well as voice features that may function distinctly in the EKTS environment. EKTS allows a DN to be shared by more than one terminal, on the same or on different interfaces.	NONE EKTS	EKTS
Type for 7 8	ISDN CALLED NO uses the International format, National format, Network format, Subscriber format, or Abbreviated format when the user dials less than 10 digits.	Unknown International National Network Subscriber Abbreviated	Unknown
Type for 10 11	ISDN CALLED NO is constructed with International format, National format, Network format, Subscriber format, or Abbreviated format when the user dials more than 10 digits.	Unknown International National Network Subscriber Abbreviated	Unknown

3.5.4.7 ISDN CO Line Attributes

Re: **PGM CODES** 143 & 151

Selecting ISDN CO Line Attributes will display the ISDN Line Attributes data input page, Figure 3.5.4.7-1. Enter a valid CO range and click Load to enter the ISDN Line Attributes data.

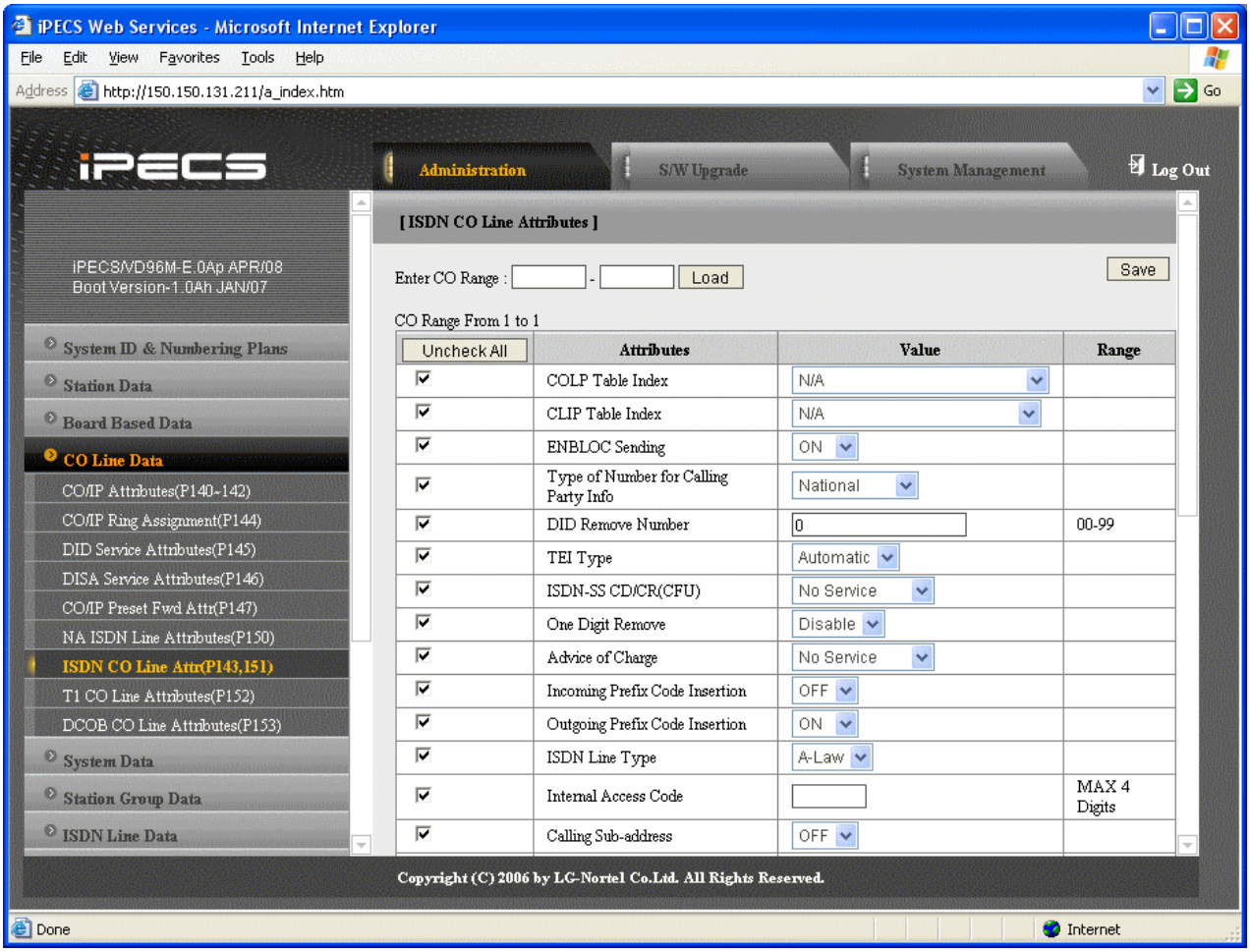


Figure 3.5.4.7-1 ISDN CO Line Attributes

ISDN standards require that the ISDN terminating device, in this case the iPECS system, include various “adjustable” timers and counters as described below.

Table 3.5.4.7-1 ISDN LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
COLP Table Index	When an incoming call on an ISDN Line is answered, the system will send caller id using the number from the CLIP/COLP Table (section 3.5.7.2) entry defined by this parameter. For entries 00 to 09 (iPECS-Micro & iPECS-50 & MFIM100) or entries 00 to 49 (other MFIMs), the station number is included as a suffix of the caller id. For "Using Station's COLP Attribute", the CLI STA NO entered in section 3.5.2.3 will be used in place of the station number.	N/A Using Station's COLP Attribute 00~09 iPECS-Micro & iPECS-50 & MFIM100 00~49 other MFIMs	N/A
CLIP Table Index	When a call is placed on an ISDN Line, the system will send caller id using the number from the CLIP/COLP Table (section 3.5.7.2) entry defined by this parameter. For entries 00 to 09 (iPECS-Micro & iPECS-50 & MFIM100) or entries 00 to 49 (other MFIMs), the station number is included as a suffix of the caller id. For "Using Station's CLIP Attribute", the CLI STA NO entered in section 3.5.2.3 will be used in place of the station number.	N/A Using Station's CLIP Attribute 00~09 iPECS-Micro & iPECS-50 & MFIM100 00~49 other MFIMs	N/A
ENBLOC Sending	This entry determines if the system sends dialed digits to the ISDN line as they are received (Overlap), or collects all digits and forwards them in a block. (ENBLOC).	ON OFF	OFF
Type of Number for Calling Party Info	For outgoing calls on an ISDN Line, this parameter defines the "Type of Number Plan" provided in Calling Party Information Element of the ISDN call SETUP message. 0: UNKNOWN 1: INTERNATIONAL 2: NATIONAL 3: Not used 4: SUBSCRIBER	Unknown International National Not Used Subscriber	Unknown
DID Remove Number	When a DID call is received on an ISDN Line, this entry determines the number of digits that will be removed starting at the first received digit.	00~99	00
TEI Type	The TEI (Terminal Endpoint Identifier) is a unique identifier for each device attached to the ISDN line. When the system shares an ISDN connection with other devices, the TEI should be automatic to assure no conflict with the other attached devices. Otherwise, the Fixed identifier option should be employed.	Fixed Automatic	Automatic
ISDN – SS CD/CR(CFU)	Permits a user to access to ISDN Supplementary Call Deflection Service (Except USA version).	No Service Call Deflection Call Rerouting	No Service
One Digit Remove	Select one digit remove mode in ISDN Called Digits (For Italy)	Enable/disable	Disable

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Advice of Charge	When assigned, the system will analyze the Advice of Charge information in the Facility Message according to the ETSI specifications with appropriate regional protocol support.	No AOC Italy & Spain Finland Australia Belgium ETSI STD	No Service
Incoming Prefix Code Insertion	Regional ISDN providers may use the Local Area Prefix code for special services. In cases where the code is not provided in the incoming call SETUP message, the system can insert the My Local Prefix and My Area Code below in SMDR, LNR, displays, etc.	ON OFF	OFF
Outgoing Prefix Code Insertion	Regional ISDN providers may use the Local Area Prefix code for special services. The system can insert the “My Area Code” and “My Local Prefix Code” in the Connect message as defined in those items below.	ON OFF	ON
ISDN Line Type	The system will encode voice using the A-law or u-law PCM format to match the installed ISDN Back bone.	μ-Law A-Law	μ-Law
International Access Code	When an incoming call includes the international Country code in the ISDN call SETUP message, the Country code can be included in the station display. To include the Country code, Incoming Prefix insertion, and CLI display in Station Attributes, section 3.5.2.3 must be On.	4 digits	-
Calling Sub-address	For outgoing calls, the user’s station number may be included in the ISDN call SETUP message Sub-address field.	ON OFF	OFF
My Area Code	Regional ISDN providers may use the Local Prefix and Area codes for special services. The system will insert this Local Area Code in the call SETUP messages defined under the Incoming/Outgoing Prefix Code Insertion entries above.	Max 6 digits	-
My Area Prefix Code	Regional ISDN providers may use the Local Prefix and Area codes for special services. The system will use this code for insertion of the Local Prefix Code in the call SETUP messages if Local Prefix Insertion is enabled above.	Max 4 digits	-
CLI Transit	When the system must send CLI to the ISDN for an off-net call, the CLI can be either the original caller’s CLI or the CLI of the Off-net forwarding/transferring station.	ORI CFW	ORI
T200	The terminal must support one T200 timer for each data link supported.	1~5 (seconds)	1
T201	The minimum time between TEI ID check messages.	1~5 (seconds)	1
T202	When the terminal transmits a TEI Identify Request message, it must provide one T202 timer for each logical link it supports.	1~5 (seconds)	2
T203	If the terminal initiates the link monitoring function, it must provide one T203 timer for each logical link it supports. T203 defines the maximum time between message exchanges.	5~15 (seconds)	10

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
T204	The T204 timer defines the minimum time between transmissions of XID messages.	5~15 (seconds)	10
T302	In the Overlap dial mode, when the system receives incomplete dialing information from the ISDN, the system will wait the T302 timer duration for the additional digits. At time-out of this timer, the call will be disconnected.	10~30 (seconds)	15
T303	T303 establishes the time Interval for a response after sending a call setup message.	1~10 (seconds)	4
T305	T305 establishes the Interval for a Released signal after receiving a Disconnect message.	10~60 (seconds)	30
T308	T308 establishes the Interval for a Released Ack signal after sending a release message.	1~10 (seconds)	4
T309	Optional state timer.	1~100 (seconds)	90
T310	Timer used in accepting Received signal	10~60 (seconds)	40
N200	The terminal shall provide one N200 counter for each logical link it supports. The default value of this counter shall be 3.	1~5	3
N201	The N201 counter sets the maximum number of Octets in the ISDN information field.	250~300 (bytes)	260
N202	If the terminal transmits a TEI Identify Request message (to request assignment of a TEI), the terminal shall provide one N202 counter for each logical link that it supports.	1~5	3
N204	The N204 counter establishes the maximum number of XID re-transmissions from the terminal.	1~5	1
K-Value	The terminal shall provide one K counter for each logical link it supports.	1~5	1
DID Name Maintenance	For DID lines, the CLI is normally displayed only during ringing. If enabled here, the CLI will be displayed for the entire call duration.	1:ON 0:OFF	OFF
ISDN Redirecting Number	When the system need to send Redirecting number to the ISDN for an off-net call, the Redirecting number can be either the original caller's CLI or the CLI of the Off-net forwarding/transferring station. If it is no service then system will not send this information. If it is OGR CLI(original CLI) then system will send original CLI that is received from incoming CO line. If it is CFW CLI then system will send redirecting CLI that is CLI for call off-net call forwarded station.	0: NO SERVICE 1: ORG CLI 2: CFW CLI	NO SERVICE

3.5.4.8 T1 CO Line Attributes

Re: **PGM CODE** 152

Selecting T1 CO Line Attributes will display the T1 Line Attributes data input page, Figure 3.5.4.8-1. Enter a valid CO range and click Load to enter the T1 Line Attributes data.

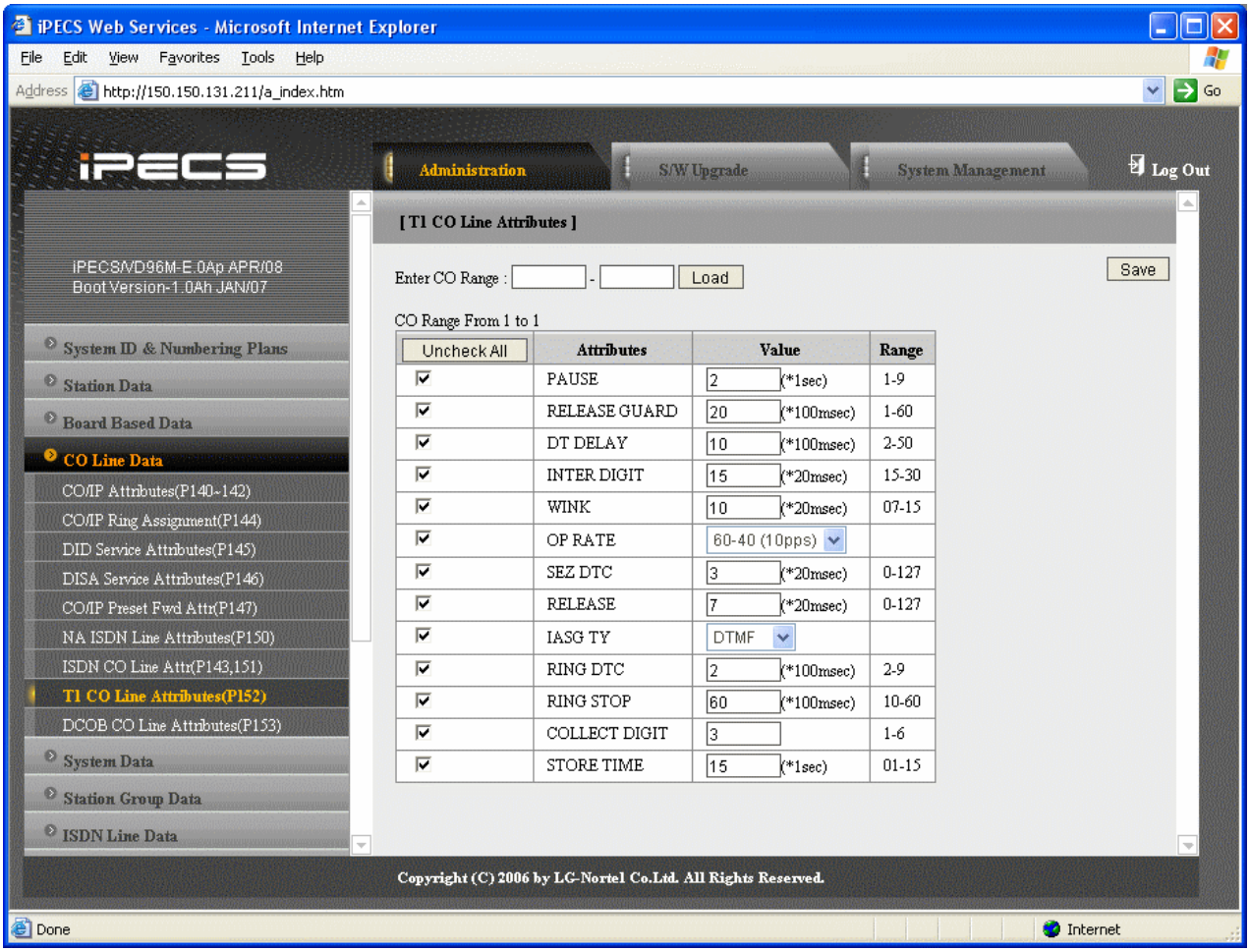


Figure 3.5.4.8-1 T1 CO Line Attributes

North American T1 standards require that the T1 terminating device, in this case the iPECS system, include various “adjustable” timers and counters as described below.

Table 3.5.4.8-1 T1 LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
PAUSE	A timed pause may be included in a Speed Dial number, in which case, the pause time is defined by this entry. Not currently implemented.	1~9 (seconds)	2

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
RELEASE GUARD	The Rls Grd (Guard) timer defines the length of time the system will maintain a Line as busy after the call has been terminated to assure the PSTN has sufficient time to 'clear down' the circuit. Not currently implemented.	01~60 (100 ms)	20
DT DELAY	The DT (Dial tone) Delay timer defines the duration dial tone must be received for DT recognition. Not currently implemented.	02~50 (100 ms)	10
INTER DIGIT	The Inter Digit timer defines the duration between digit transmissions. Not currently implemented.	15~30 (20 ms)	15
WINK	For TIE or DID Lines the Wink timer defines the length of time the 'wink' (T1 TIE line circuit reversal) will last.	7~15 (20 ms)	10
OP RATE	For Pulse signaling, defines the duration and make/break ratio of each pulse.	0: 60-40(10pps) 1: 66-33(10pps) 2: 60-40(20pps) 3: 66-33(20pps)	60-40(10pps)
SEZ DTC	This timer defines the length of a valid 'line seizure' signal.	0~127 (20 ms)	3
RELEASE	For Ground Start Lines, defines the minimum length of time ground will not be applied to the TIP side from the PSTN.	0~127 (20 ms)	7
IASG TY	Incoming Address Signaling Type defines the type of signaling (DTMF or Pulse) expected.	PULSE DTMF	DTMF
RING DTC	The Ring DTC (detect) timer defines the minimum acceptable length of the Ring-on time during a ring cycle.	2~9 (100 ms)	2
RING STOP	The Ring Stop timer defines the maximum Ring-off time during a ring cycle.	10~60 (100 ms)	60
COLLECT DGT	Collect DGT (digits) defines the number of digits expected on a DID line.	1~6	3
STORE TIME	For DID lines, this timer defines the maximum delay between incoming DID digits.	1~15 (second)	3

3.5.4.9 DCOB CO Line Attributes

Re: **PGM CODE** 153

Selecting DCOB CO Line Attributes will display the DCOB Line Attributes data input page, Figure 3.5.4.9-1. Enter a valid CO range and click Load to enter the DCOB Line Attributes data.

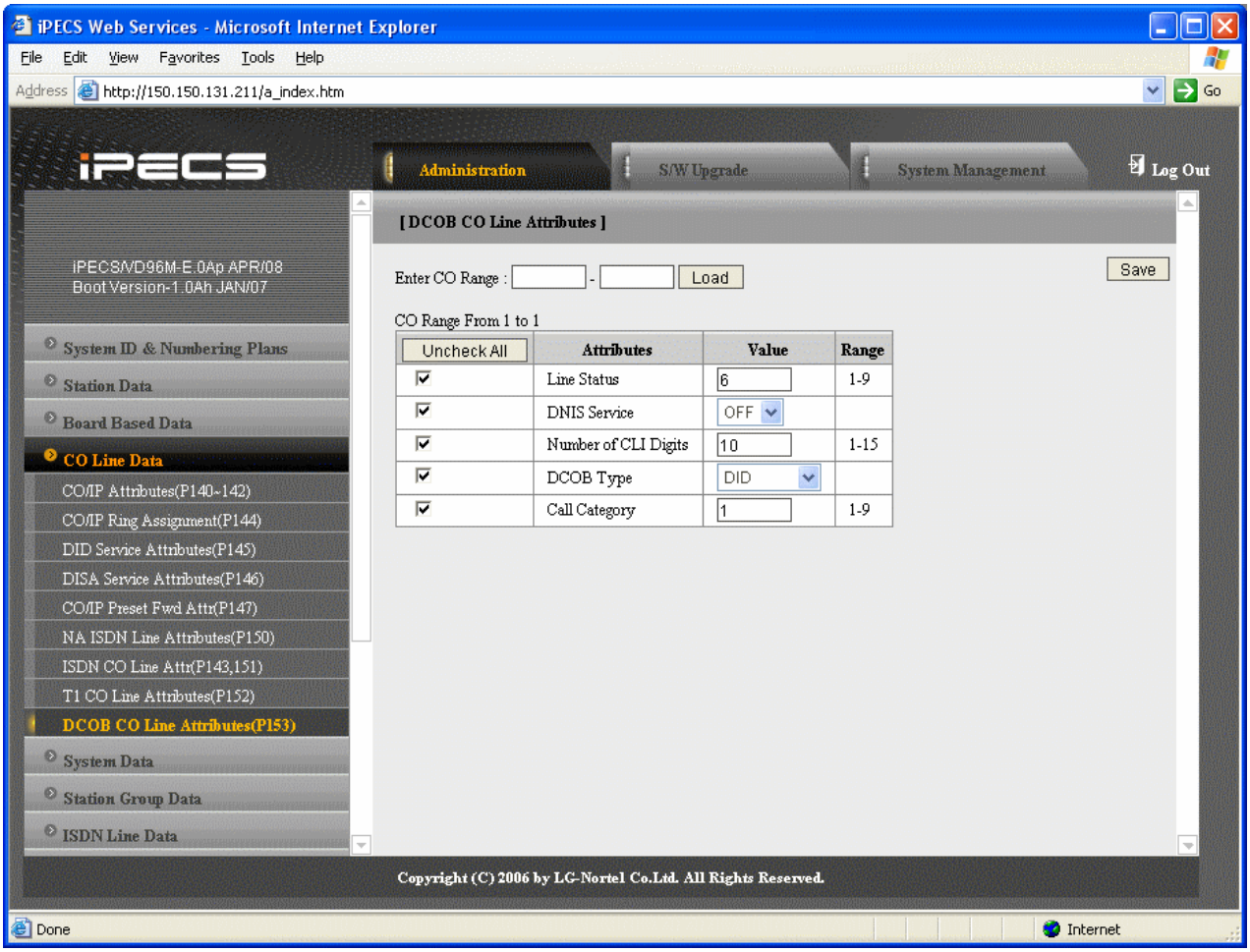


Figure 3.5.4.9-1 DCOB CO Line Attributes

Table 3.5.4.9-1 DCOB LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Line Status	Send Line status information to PX when a call routed to subscriber before the called party is ringing.	1~9	6
DNIS Service	In R2, determine whether system will send caller information to PX or not.	ON/OFF	OFF
Number of CLI Digits	In R2, Gateway request CLI Digit to PX.	01~15	10
DCOB Type	According to this type, the line can be restricted to seize CO line for outgoing call.	0~2	2
Call Category	In R2 signaling, category signal used by iPECS is defined here.	1~9	1

3.5.5 System Data

Selecting the System Data program group returns the sub-menu displayed in Figure 3.5.5-1.

Figure 3.5.5-1 System Data

3.5.5.1 System Attributes

Re: **PGM CODES** 160 & 161

Selecting System Attributes will display the System Attributes data entry page, Figure 3.5.5.1-1. Selecting the blue colored text in the Table header will sort the table based on the selected column.

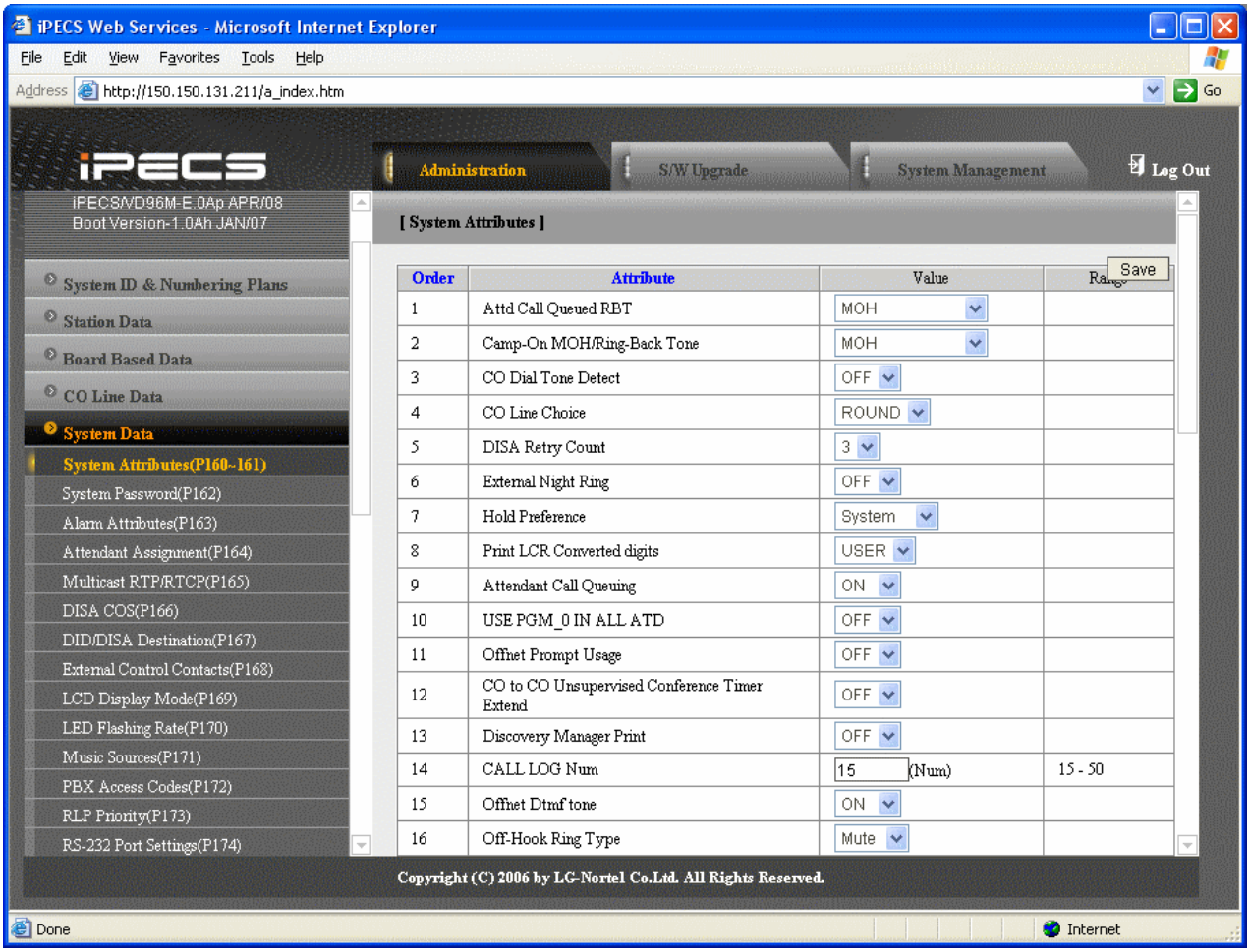


Figure 3.5.5.1-1 System Attributes

System Attributes define settings that affect system wide features and functions. Generally, the entry will turn the feature On (enable) or Off (disable). Refer to Table 3.5.5.1-1 for a description of the Attributes and the data entries required.

Table 3.5.5.1-1 SYSTEM ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Attd Call Queued RBT	When calling a busy attendant, the system will provide either ring-back tone or MOH. If MOH is selected, the source must be defined in section 3.5.5.11.	MOH Ring-Back Tone	MOH
Camp-On MOH/Ring-Back Tone	When Camp-On is used, the calling station will receive either ring-back tone or MOH. If MOH is selected, a source must be defined in section 3.5.5.11.	RB tone MOH	MOH

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Dial Tone Detect	The system can use dial-tone detection or a timed pause for speed dial numbers that contain a Pause.	ON OFF	OFF
CO Line Choice	CO Lines are selected by the system from groups using either the LAST used, FIRST or ROUND robin method.	LAST FIRST ROUND	LAST
DISA Retry Count	A DISA user is allowed to retry erroneous authentication code entries. This entry sets the number of retries before the system disconnects.	1~9	3
External Night Ring	CO/IP calls, which are assigned UNA, can activate the Loud Bell Contact. While in the Night mode, an incoming call will activate the contact.	ON OFF	OFF
Hold Preference	A single depression of the **[HOLD]** button places the call on the preferred hold, System or Exclusive.	System Exclusive	System
Print LCR Converted digits	SMDR will output the number dialed by either the system's LCR or the user.	LCR USER	LCR
Attendant Call Queuing	The system can be configured to queue incoming calls to a busy Attendant.	ON OFF	OFF
USE PGM_0 IN ALL ATD	Allows Main Attendants to activate Day/Night mode. Not available in USA version.	ON OFF	OFF
Offnet Prompt Usage	When a call is routed to a destination external to the iPECS, the Off Net routing prompt can be played. Not available in US version.	ON OFF	OFF
CO to CO Unsupervised Conference Timer Extend	When an Unsupervised Conference is established with DISA, Off-Net Fwd, etc, the Unsupervised Conference timer, section 3.5.5.20, determines the allowed duration of the call. If enabled here, the user may extend the allowed duration.	ON OFF	OFF
Discovery Manager Print	When the optional ACD Event messages are required, the system must be enabled here to send the events.	ON OFF	OFF
CALL LOG Num	The Call Log that saves the Outgoing call, Received call, or Lost call information, can be displayed by pressing Call Log Display Button. The maximum size of the Call Log per station is defined here.	15~50	15
Repeat Dtmf tone	If enabled, the system will repeat DTMF tones to the caller's station when the call is routed to an off-net call forward location.	ON OFF	ON
Off-Hook Ring Type	Off-hook ring can be a single tone burst or muted normal ring.	MUTE BURST	MUTE
Page Warning Tone	A warning tone can be sent prior to a page announcement.	ON OFF	ON
Automatic Privacy	Automatic Privacy can be disabled, allowing stations to join an active CO/IP call. A warning tone can be provided, see Privacy Warning Tone below.	ON OFF	ON
Privacy Warning Tone	If desired, a warning tone can be provided when privacy is overridden.	ON OFF	ON
ACD Print Enable	ACD statistics can be periodically sent to the assigned serial port. To provide periodic reports, this feature must be ON.	ON OFF	OFF
ACD Print Timer	This entry defines the time, in 10-second increments, between the periodic ACD reports assigned above.	001~255 (10 sec)	010
Clear ACD Database	When a periodic report is sent, the ACD database can be cleared automatically, if "ON".	OFF ON	OFF
Override 1st CO Group	When a user dials '9', the system can search all CO/IP Groups for the first available CO/IP line.	OFF ON	ON

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Codec Type	The default codec can be defined as G.711, G.729 or G.723.1 for decreased bandwidth needs. The selected codec will be used on all internal communications as well as for remote iPECS devices.	2: G.729 1: G723.1 0: G711	G711
G711 Packetization	The G.711 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.711 codec is used.	10/20/30 (1 msec)	020
G723 Packetization	The G.723.1 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.723.1 codec is used.	30/60 (1 msec)	030
Network Time/Date	The system can use ISDN Network time or NTP to synchronize time with the ISDN or data network. To disable time sync, use disable. ISDN sync is not available in USA version.	0: disable 1: ISDN 2: NTP	disable
Incoming Toll Check	The system can invoke COS dialing restrictions when a user dials while connected to incoming call.	ON OFF	ON
Web Server Port	This field determines the TCP port employed to access the system WEB server.	00001- 65535	80
Web Admin Password Encryption	When desired, a Java VM installed in the user's PC can be used to implement RC-6 block encryption of the Web Admin password.	ON OFF	OFF
Auth Retry Count	When an Authorization code is required, the user may attempt to enter a Valid code up to the maximum value defined in this field.	1-9	3
Old Auth Code Usage	System Authorization codes are entered by the user as "* and the code (ON) or "*"+ the Auth code index and the code (OFF).	ON OFF	ON
COS 7 when Auth Fail	If user fails to enter a valid Authorization code in the number of attempts assigned in Auth Retry Count above, the station is disconnected or the Station COS is changed to COS 7. In the later case, the user must employ COS Restore in Station User **PGM CODE** 2 to return the station to the normal COS.	ON OFF	OFF
Application Interface Message	System Integration Messages are sent out the defined serial or TCP channel, see AIM manual.	ON OFF	OFF
Conference Room CO Tel Number	ISDN DID number an external party must dial to enter a Conference room, Phontage only.	Max 15 digits	
Record warning tone	When call recording is active, a tone can be sent to all connected parties to indicate the conversation is being recorded.	ON OFF	ON
CPU Redundancy Usage	When redundancy is employed, this field is used to inform the master MFIM that a redundant MFIM is available.	ON OFF	OFF
Change ACT MFIM By Power Fail	When power fails, the active MFIM is changed to the standby mode and the standby MFIM becomes active.	ON OFF	OFF
MFIM DIFF SERVE	MFIM Diff-Serv pretag value	00-63	04
G/W, Phone Upgrade Mode	Upgrade transfer mode from MFIM to iPECS gateways	1: FTP 0: TFTP	FTP
CO Transfer Tone	When a CO call is transferred to a busy extension , Ring Back Tone or Music On Hold will be played to the CO Line	MOH Ring-Back Tone	Ring-Back Tone
Conference Warning Tone	When new member joins a conference room, the system provides warning tone to conference members.	ON OFF	ON
TLS for Web	Enables Transport Layer Security (TLS for Web access.	0: OFF 1: ON	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Dummy Dial Tone	When a CO line does not provide dial tone, the system can provide dummy dial tone.	ON OFF	OFF
SIP Station Mode	SIP phones may set-up a point-to-point RTP connection (PTP) or to assure a controlled connection, RTP can be routed via a VoIP channel (RTD).	0: RTD 1: PTP	RTD
SMS Center Number	When the PSTN will be used to send SMS, the phone number of the Short Message Service Center must be entered.	23 digits	
SMS Center CLI	When the CO/IP will be used to receive SMS, the Caller Id expected from the Short Msg Service Center must be defined.	23 digits	
SMS Protocol	The Short Message Service Protocol must be selected to support SMS: 0; No PSTN SMS support, 1: ETSI-P1 2: ETSI-P2 3 KT-LivingNet 4. SIP-Text 5 SIP-XML	0 ~ 5:	NONE
G722 Packetization	The G.722 voice frame packetization time determines the interval at which voice samples are packetized and sent when the G.722 codec is used.	10/20/30 (1 msec)	020
Transit-out security	Check IP address for transit-out in the master system, if it is not valid IP address then it will be denied.	0:OFF 1:ON	ON
Emergency call attendant notify	Provide notification to attendant when user dial emergency number	0:OFF 1:ON	ON
3 way conference preference	Use MCIM to make 3 way conference if it is MCIM, otherwise conference will be done on each member.	0:LOCAL 1:MCIM	MCIM
First digit * in SPD	If it is '0' then the first '*' in speed will be used for display security otherwise DTMF '*' will be send.	0:DISPLAY SECURITY 1:DIGIT *	0: DISPLAY SECURITY
SIP pound(#) usage	ON: Send digit '#' when user press '#' OFF: The '#' is used for sending complete.	0:OFF 1:ON	OFF
VSF/VMIM SMTP port	SMTP port o VSF / VMIM f	00001~65535	00025

3.5.5.2 System Password

Re: **PGM CODE** 162

Selecting System Password will display the System Password data entry page, Figure 3.5.5.2-1.

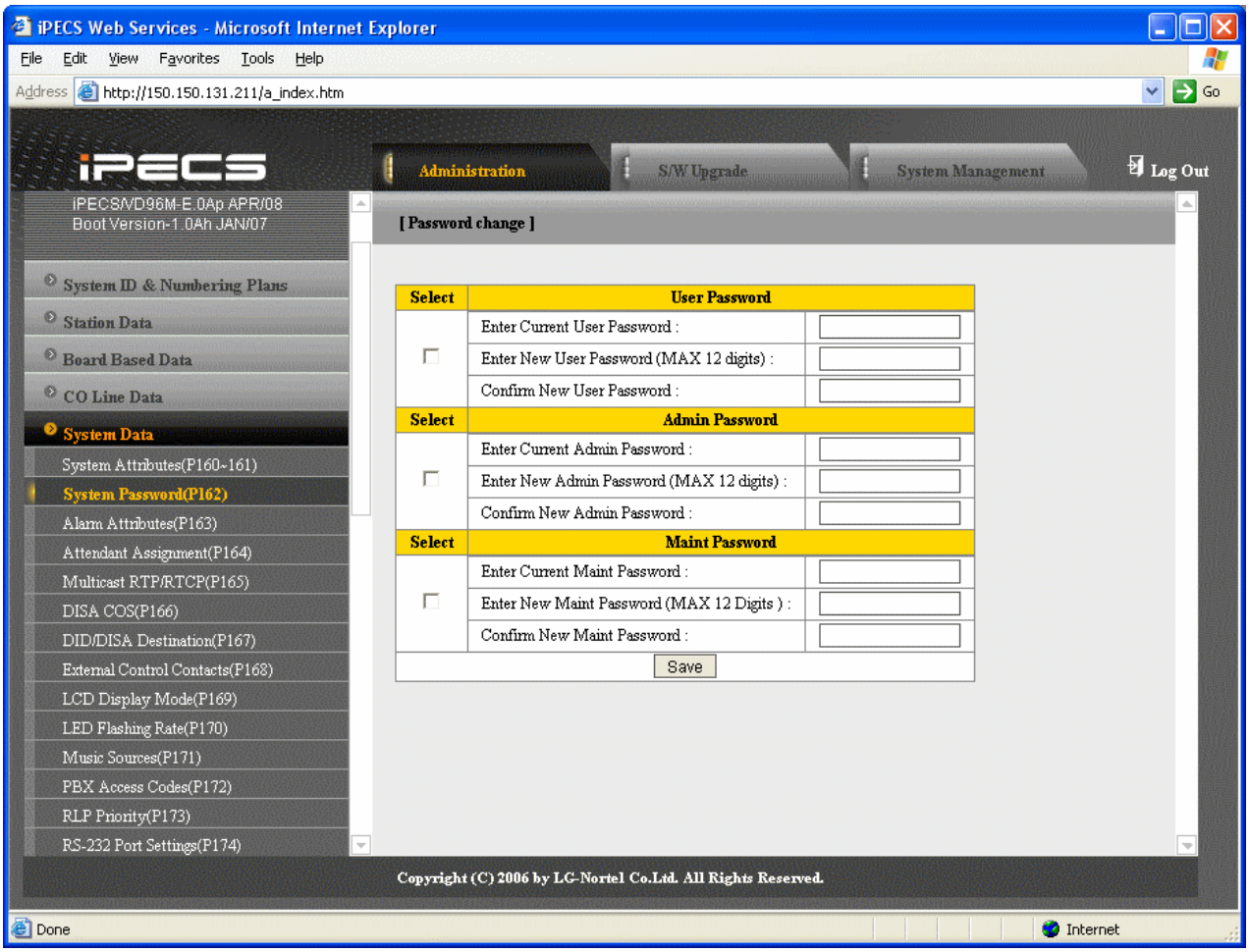


Figure 3.5.5.2-1 System Password

Entry to the system database and maintenance functions can be protected by a password up to twelve (12) digits. Separate Web Admin Service passwords may be assigned for User, Admin and Maintenance access. When defined, the passwords limit access to portions of the Web Admin services. The Maintenance password gives access to all of the iPECS Web Admin & Maintenance services. The User and Admin passwords give access to the selections assigned in Web Access Authorization, section 3.5.5.22.

3.5.5.3 Alarm Attributes

Re: **PGM CODE** 163

Selecting Alarm Attributes will display the Alarm Attributes data entry page, Figure 3.5.5.3-1.

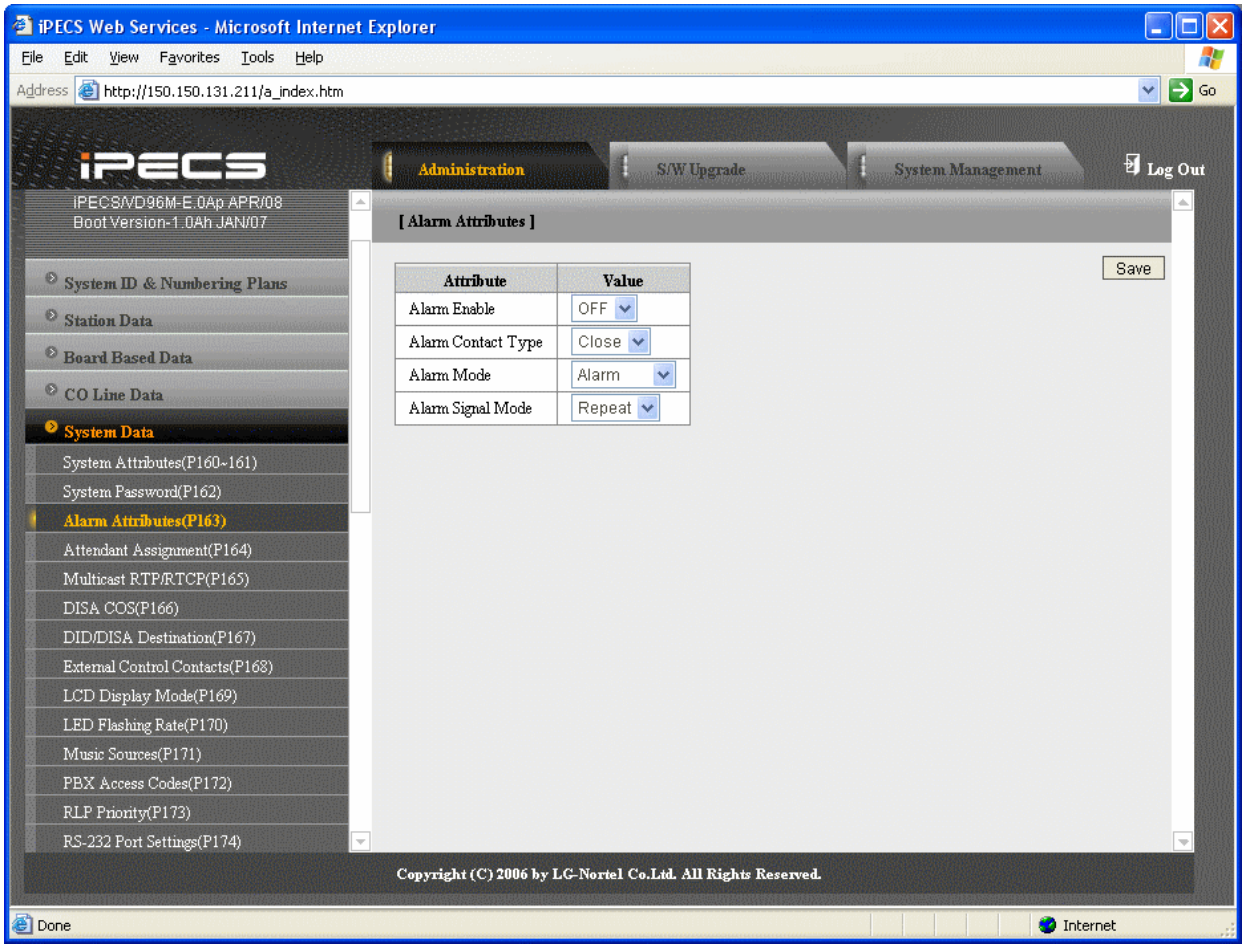


Figure 3.5.5.3-1 Alarm Attributes

The system can monitor an external contact. This contact is most often employed as an Alarm indicator or Doorbell. The Alarm attributes define the operation of the external contact. For the Alarm, the signal to assigned stations can be repeating or a single burst, the former is often desired. For the Doorbell, a single tone is sent each time the contact activates. Refer to Table 3.5.5.3-1 for a description of the features and the data entries required for each attribute.

Table 3.5.5.3-1 ALARM ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Alarm Enable	This entry enables/disables the contact monitoring circuitry.	ON OFF	OFF
Alarm Contact Type	This parameter establishes the contact state that will activate the Alarm, close or open.	Close Open	Close
Alarm Mode	The contact can be treated to function as a doorbell or an alarm.	Alarm Door-Bell	Alarm
Alarm Signal Mode	The assigned stations will receive a Repeating signal or single burst (Once) of alarm tone.	Repeat Once	Repeat

3.5.5.4 Attendant Assignment

Re: **PGM CODE** 164

Selecting Attendant Assignment will display the Attendant Assignment data entry page, Figure 3.5.5.4-1.

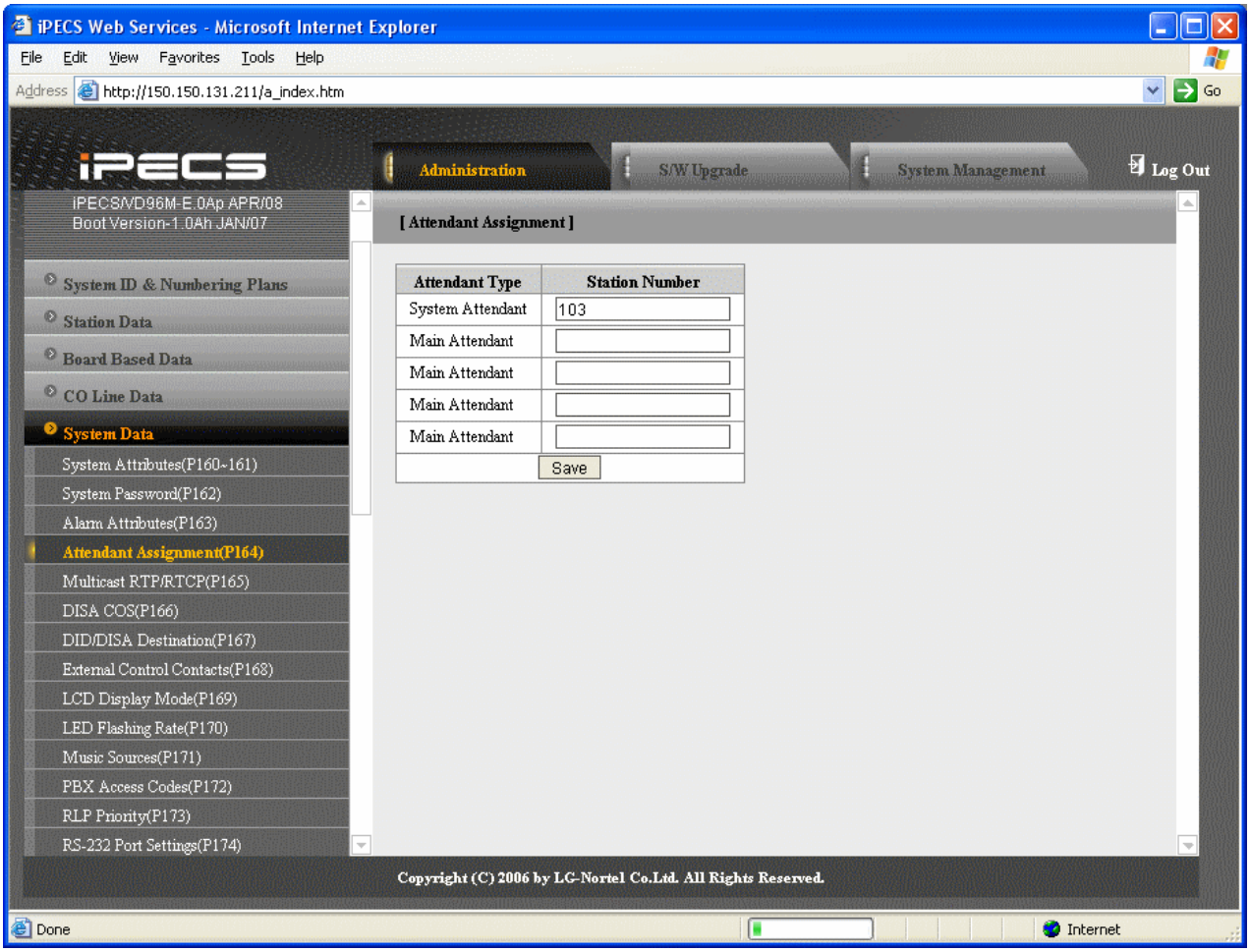


Figure 3.5.5.4-1 Attendant Assignment

A maximum of four (4) Attendants can be assigned with the iPECS-Micro, IPECS-50 and MFIM100 or five (5) with other MFIM models. One is the System Attendant and the remaining are Main Attendants. The System Attendant has higher priority in call handling and system management functions. As a default, the System Attendant is assigned Station 100. Main Attendants are not assigned by default.

3.5.5.5 Multi-cast RTP/RTCP

Re: **PGM CODE** 165

Selecting Multi-cast RTP/RTCP will display the Multi-cast RTP/RTCP data entry page, Figure 3.5.5.5-1.

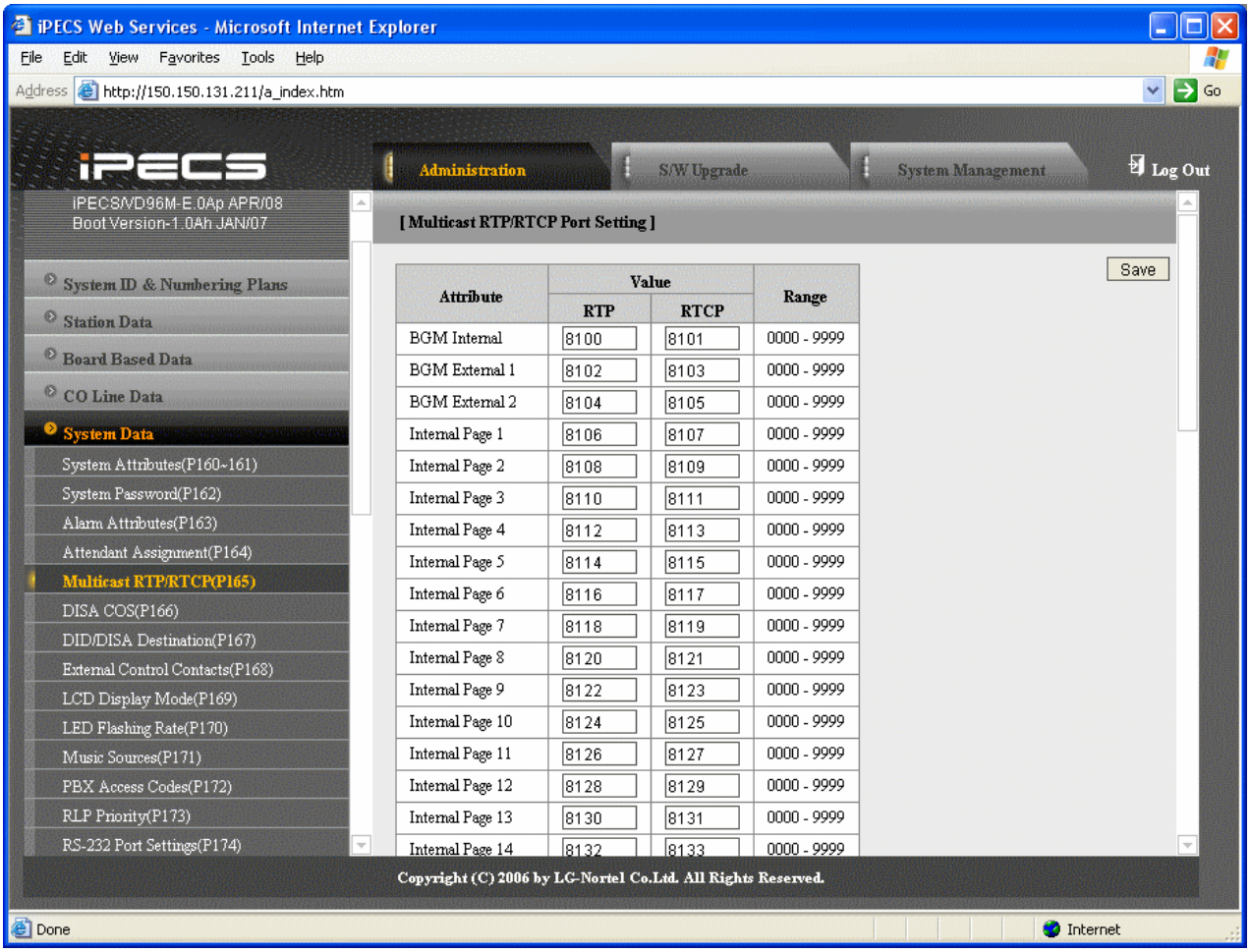

iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
Go
iPECS
Administration
S/W Upgrade
System Management
Log Out
iPECS/VD96M-E.0Ap APR/08
Boot Version-1.0Ah JAN/07
[Multicast RTP/RTCP Port Setting]
Save
System ID & Numbering Plans
Station Data
Board Based Data
CO Line Data
System Data
System Attributes(P160~161)
System Password(P162)
Alarm Attributes(P163)
Attendant Assignment(P164)
Multicast RTP/RTCP(P165)
DISA COS(P166)
DID/DISA Destination(P167)
External Control Contacts(P168)
LCD Display Mode(P169)
LED Flashing Rate(P170)
Music Sources(P171)
PBX Access Codes(P172)
RLP Priority(P173)
RS-232 Port Settings(P174)
Attribute
Value
RTP
RTCP
Range
BGM Internal 8100 8101 0000 - 9999
BGM External 1 8102 8103 0000 - 9999
BGM External 2 8104 8105 0000 - 9999
Internal Page 1 8106 8107 0000 - 9999
Internal Page 2 8108 8109 0000 - 9999
Internal Page 3 8110 8111 0000 - 9999
Internal Page 4 8112 8113 0000 - 9999
Internal Page 5 8114 8115 0000 - 9999
Internal Page 6 8116 8117 0000 - 9999
Internal Page 7 8118 8119 0000 - 9999
Internal Page 8 8120 8121 0000 - 9999
Internal Page 9 8122 8123 0000 - 9999
Internal Page 10 8124 8125 0000 - 9999
Internal Page 11 8126 8127 0000 - 9999
Internal Page 12 8128 8129 0000 - 9999
Internal Page 13 8130 8131 0000 - 9999
Internal Page 14 8132 8133 0000 - 9999
Copyright (C) 2006 by LG-Nortel Co.Ltd. All Rights Reserved.
Done
Internet

Figure 3.5.5.5-1 Multi-cast RTP/RTCP

Multi-cast is employed by the system to send BGM, MOH, paging and Push-To-Talk packets. Employing a single multi-cast packet reduces the overall LAN traffic. In some cases, specifically when multiple systems are connected to the same default gateway (router) it may be advantageous to define different IP ports for each system. For systems employing the iPECS-Micro, there are 33 RTP (Real-time protocol) and 33 RTCP (Real-time Control protocol), For the systems employing an MFIM100, iPECS-50, there are 36 RTP (Real-time protocol) and 36 RTCP (Real-time Control protocol) ports that can be defined. For systems with the MFIM300 or MFIM600, there are 54 RTP and RTCP ports defined as shown in and Table 3.5.5.5-2 below. For systems with the MFIM1200, there are 126 RTP and RTCP ports defined as shown in and Table 3.5.5.5-2 below.

Table 3.5.5.5-1 MULTI-CAST RTP/RTCP

(iPECS-Micro)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
BGM Internal	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
BGM External 1	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
BGM External 2	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
Internal Page 1	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
Internal Page 2	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
Internal Page 3	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
Internal Page 4	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
Internal Page 5	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
Internal Page 6	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
Internal Page 7	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
Internal Page 8	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
Internal Page 9	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
Internal Page 10	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
Internal All Page	RTP and RTCP ports for Internal All Call Page.	0000-9999	8126 (8127)
Page All	RTP and RTCP ports for All Call Page.	0000-9999	8134 (8135)
PTT 1	RTP and RTCP ports for PTT group 1.	0000-9999	8136 (8137)
PTT 2	RTP and RTCP ports for PTT group 2.	0000-9999	8138 (8139)
PTT 3	RTP and RTCP ports for PTT group 3.	0000-9999	8140 (8141)
PTT 4	RTP and RTCP ports for PTT group 4.	0000-9999	8142 (8143)
PTT 5	RTP and RTCP ports for PTT group 5.	0000-9999	8144 (8145)
PTT 6	RTP and RTCP ports for PTT group 6.	0000-9999	8146 (8147)
PTT 7	RTP and RTCP ports for PTT group 7.	0000-9999	8148 (8149)
PTT 8	RTP and RTCP ports for PTT group 8.	0000-9999	8150 (8151)
PTT 9	RTP and RTCP ports for PTT group 9.	0000-9999	8152 (8153)
PTT All	RTP and RTCP ports for PTT group ALL	0000-9999	8154 (8155)
BGM Internal VSF	RTP and RTCP ports for VSF/VMIM BGM	0000-9999	8206 (8207)
SLT MOH 1	RTP and RTCP ports for SLT MOH1	0000-9999	8208 (8209)
SLT MOH 2	RTP and RTCP ports for SLT MOH2	0000-9999	8210 (8211)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
SLT MOH 3	RTP and RTCP ports for SLT MOH3	0000-9999	8212 (8213)
SLT MOH 4	RTP and RTCP ports for SLT MOH4	0000-9999	8214 (8215)
SLT MOH 5	RTP and RTCP ports for SLT MOH5	0000-9999	8216 (8217)

Table 3.5.5.5-2 MULTI-CAST RTP/RTCP

(iPECS-50 & MFIM100)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
BGM Internal	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
BGM External 1	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
BGM External 2	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
Internal Page 1	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
Internal Page 2	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
Internal Page 3	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
Internal Page 4	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
Internal Page 5	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
Internal Page 6	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
Internal Page 7	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
Internal Page 8	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
Internal Page 9	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
Internal Page 10	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
Internal All Page	RTP and RTCP ports for Internal All Call Page.	0000-9999	8126 (8127)
External Page 1	RTP and RTCP ports for External Page 1.	0000-9999	8128 (8129)
External Page 2	RTP and RTCP ports for External Page 2.	0000-9999	8130 (8131)
External All Page	RTP and RTCP ports for External All Call Page.	0000-9999	8132 (8133)
Page All	RTP and RTCP ports for All Call Page.	0000-9999	8134 (8135)
PTT 1	RTP and RTCP ports for PTT group 1.	0000-9999	8136 (8137)
PTT 2	RTP and RTCP ports for PTT group 2.	0000-9999	8138 (8139)
PTT 3	RTP and RTCP ports for PTT group 3.	0000-9999	8140 (8141)
PTT 4	RTP and RTCP ports for PTT group 4.	0000-9999	8142 (8143)
PTT 5	RTP and RTCP ports for PTT group 5.	0000-9999	8144 (8145)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
PTT 6	RTP and RTCP ports for PTT group 6.	0000-9999	8146 (8147)
PTT 7	RTP and RTCP ports for PTT group 7.	0000-9999	8148 (8149)
PTT 8	RTP and RTCP ports for PTT group 8.	0000-9999	8150 (8151)
PTT 9	RTP and RTCP ports for PTT group 9.	0000-9999	8152 (8153)
PTT All	RTP and RTCP ports for PTT group ALL	0000-9999	8154 (8155)
BGM Internal VSF	RTP and RTCP ports for VSF/VMIM BGM	0000-9999	8206 (8207)
SLT MOH 1	RTP and RTCP ports for SLT MOH1	0000-9999	8208 (8209)
SLT MOH 2	RTP and RTCP ports for SLT MOH2	0000-9999	8210 (8211)
SLT MOH 3	RTP and RTCP ports for SLT MOH3	0000-9999	8212 (8213)
SLT MOH 4	RTP and RTCP ports for SLT MOH4	0000-9999	8214 (8215)
SLT MOH 5	RTP and RTCP ports for SLT MOH5	0000-9999	8216 (8217)

Table 3.5.5.5-2 MULTI-CAST RTP/RTCP

(MFIM300 & MFIM600)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Internal BGM RTP & RTCP ports	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
External BGM port 1 RTP & RTCP ports	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
External BGM port 2 RTP & RTCP ports	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
Internal Page 1 RTP & RTCP ports	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
Internal Page 2 RTP & RTCP ports	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
Internal Page 3 RTP & RTCP ports	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
Internal Page 4 RTP & RTCP ports	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
Internal Page 5 RTP & RTCP ports	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)
Internal Page 6 RTP & RTCP ports	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
Internal Page 7 RTP & RTCP ports	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
Internal Page 8 RTP & RTCP ports	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
Internal Page 9 RTP & RTCP ports	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
Internal Page 10 RTP & RTCP ports	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
Internal Page 11 RTP & RTCP ports	RTP and RTCP ports for Internal Page 11	0000-9999	8126 (8127)
Internal Page 12 RTP & RTCP ports	RTP and RTCP ports for Internal Page 12.	0000-9999	8128 (8129)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Internal Page 13 RTP & RTCP ports	RTP and RTCP ports for Internal Page 13.	0000-9999	8130 (8131)
Internal Page 14 RTP & RTCP ports	RTP and RTCP ports for Internal Page 14.	0000-9999	8132 (8133)
Internal Page 15 RTP & RTCP ports	RTP and RTCP ports for Internal Page 15	0000-9999	8134 (8135)
Internal Page 16 RTP & RTCP ports	RTP and RTCP ports for Internal Page 16.	0000-9999	8136 (8137)
Internal Page 17 RTP & RTCP ports	RTP and RTCP ports for Internal Page 17.	0000-9999	8138 (8139)
Internal Page 18 RTP & RTCP ports	RTP and RTCP ports for Internal Page 18.	0000-9999	8140 (8141)
Internal Page 19 RTP & RTCP ports	RTP and RTCP ports for Internal Page 19	0000-9999	8142 (8143)
Internal Page 20 RTP & RTCP ports	RTP and RTCP ports for Internal Page 20.	0000-9999	8144 (8145)
Internal Page 21 RTP & RTCP ports	RTP and RTCP ports for Internal Page 21.	0000-9999	8146 (8147)
Internal Page 22 RTP & RTCP ports	RTP and RTCP ports for Internal Page 22.	0000-9999	8148 (8149)
Internal Page 23 RTP & RTCP ports	RTP and RTCP ports for Internal Page 23	0000-9999	8150 (8151)
Internal Page 24 RTP & RTCP ports	RTP and RTCP ports for Internal Page 24.	0000-9999	8152 (8153)
Internal Page 25 RTP & RTCP ports	RTP and RTCP ports for Internal Page 25	0000-9999	8154 (8155)
Internal Page 26 RTP & RTCP ports	RTP and RTCP ports for Internal Page 26.	0000-9999	8156 (8157)
Internal Page 27 RTP & RTCP ports	RTP and RTCP ports for Internal Page 27	0000-9999	8158 (8159)
Internal Page 28 RTP & RTCP ports	RTP and RTCP ports for Internal Page 28.	0000-9999	8160 (8161)
Internal Page 29 RTP & RTCP ports	RTP and RTCP ports for Internal Page 29.	0000-9999	8162 (8163)
Internal Page 30 RTP & RTCP ports	RTP and RTCP ports for Internal Page 30.	0000-9999	8164 (8165)
Internal Page 31 RTP & RTCP ports	RTP and RTCP ports for Internal Page 31	0000-9999	8166 (8167)
Internal Page 32 RTP & RTCP ports	RTP and RTCP ports for Internal Page 32.	0000-9999	8168 (8169)
Internal Page 33 RTP & RTCP ports	RTP and RTCP ports for Internal Page 33.	0000-9999	8170 (8171)
Internal Page 34 RTP & RTCP ports	RTP and RTCP ports for Internal Page 34.	0000-9999	8172 (8173)
Internal Page 35 RTP & RTCP ports	RTP and RTCP ports for Internal Page 35.	0000-9999	8174 (8175)
Internal All Page RTP & RTCP ports	RTP and RTCP ports for Internal All Call Page	0000-9999	8176 (8177)
External Page 1 RTP & RTCP ports	RTP and RTCP ports for External Page 1.	0000-9999	8178 (8179)
External Page 2 RTP & RTCP ports	RTP and RTCP ports for External Page 2.	0000-9999	8180 (8181)
External All Page RTP & RTCP ports	RTP and RTCP ports for External All Call Page.	0000-9999	8182 (8183)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
All Call Page RTP & RTCP ports	RTP and RTCP ports for All Call Page.	0000-9999	8184 (8185)
PTT 1 RTP & RTCP ports	RTP and RTCP ports for PTT group 1.	0000-9999	8146 (8147)
PTT 2 RTP & RTCP ports	RTP and RTCP ports for PTT group 2.	0000-9999	8148 (8149)
PTT 3 RTP & RTCP ports	RTP and RTCP ports for PTT group 3.	0000-9999	8150 (8151)
PTT 4 RTP & RTCP ports	RTP and RTCP ports for PTT group 4.	0000-9999	8152 (8153)
PTT 5 RTP & RTCP ports	RTP and RTCP ports for PTT group 5.	0000-9999	8154 (8155)
PTT 6 RTP & RTCP ports	RTP and RTCP ports for PTT group 6.	0000-9999	8156 (8157)
PTT 7 RTP & RTCP ports	RTP and RTCP ports for PTT group 7.	0000-9999	8158 (8159)
PTT 8 RTP & RTCP ports	RTP and RTCP ports for PTT group 8.	0000-9999	8160 (8161)
PTT 9 RTP & RTCP ports	RTP and RTCP ports for PTT group 9.	0000-9999	8162 (8163)
PTT All RTP & RTCP ports	RTP and RTCP ports for PTT group ALL	0000-9999	8164 (8165)
BGM Internal VSF	RTP and RTCP ports for VSF/VMIM BGM	0000-9999	8206 (8207)
SLT MOH 1	RTP and RTCP ports for SLT MOH1	0000-9999	8208 (8209)
SLT MOH 2	RTP and RTCP ports for SLT MOH2	0000-9999	8210 (8211)
SLT MOH 3	RTP and RTCP ports for SLT MOH3	0000-9999	8212 (8213)
SLT MOH 4	RTP and RTCP ports for SLT MOH4	0000-9999	8214 (8215)
SLT MOH 5	RTP and RTCP ports for SLT MOH5	0000-9999	8216 (8217)

Table 3.5.5.5-4 MULTI-CAST RTP/RTCP

(MFIM1200)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Internal BGM RTP & RTCP ports	RTP and RTCP ports for internal BGM.	0000-9999	8100 (8101)
External BGM port 1 RTP & RTCP ports	RTP and RTCP ports for external BGM 1.	0000-9999	8102 (8103)
External BGM port 2 RTP & RTCP ports	RTP and RTCP ports for external BGM 2.	0000-9999	8104 (8105)
Internal Page 1 RTP & RTCP ports	RTP and RTCP ports for Internal Page 1.	0000-9999	8106 (8107)
Internal Page 2 RTP & RTCP ports	RTP and RTCP ports for Internal Page 2.	0000-9999	8108 (8109)
Internal Page 3 RTP & RTCP ports	RTP and RTCP ports for Internal Page 3.	0000-9999	8110 (8111)
Internal Page 4 RTP & RTCP ports	RTP and RTCP ports for Internal Page 4.	0000-9999	8112 (8113)
Internal Page 5 RTP & RTCP ports	RTP and RTCP ports for Internal Page 5.	0000-9999	8114 (8115)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Internal Page 6 RTP & RTCP ports	RTP and RTCP ports for Internal Page 6.	0000-9999	8116 (8117)
Internal Page 7 RTP & RTCP ports	RTP and RTCP ports for Internal Page 7.	0000-9999	8118 (8119)
Internal Page 8 RTP & RTCP ports	RTP and RTCP ports for Internal Page 8.	0000-9999	8120 (8121)
Internal Page 9 RTP & RTCP ports	RTP and RTCP ports for Internal Page 9.	0000-9999	8122 (8123)
Internal Page 10 RTP & RTCP ports	RTP and RTCP ports for Internal Page 10.	0000-9999	8124 (8125)
Internal Page 11 RTP & RTCP ports	RTP and RTCP ports for Internal Page 11	0000-9999	8126 (8127)
Internal Page 12 RTP & RTCP ports	RTP and RTCP ports for Internal Page 12.	0000-9999	8128 (8129)
Internal Page 13 RTP & RTCP ports	RTP and RTCP ports for Internal Page 13.	0000-9999	8130 (8131)
Internal Page 14 RTP & RTCP ports	RTP and RTCP ports for Internal Page 14.	0000-9999	8132 (8133)
Internal Page 15 RTP & RTCP ports	RTP and RTCP ports for Internal Page 15	0000-9999	8134 (8135)
Internal Page 16 RTP & RTCP ports	RTP and RTCP ports for Internal Page 16.	0000-9999	8136 (8137)
Internal Page 17 RTP & RTCP ports	RTP and RTCP ports for Internal Page 17.	0000-9999	8138 (8139)
Internal Page 18 RTP & RTCP ports	RTP and RTCP ports for Internal Page 18.	0000-9999	8140 (8141)
Internal Page 19 RTP & RTCP ports	RTP and RTCP ports for Internal Page 19	0000-9999	8142 (8143)
Internal Page 20 RTP & RTCP ports	RTP and RTCP ports for Internal Page 20.	0000-9999	8144 (8145)
Internal Page 21 RTP & RTCP ports	RTP and RTCP ports for Internal Page 21.	0000-9999	8146 (8147)
Internal Page 22 RTP & RTCP ports	RTP and RTCP ports for Internal Page 22.	0000-9999	8148 (8149)
Internal Page 23 RTP & RTCP ports	RTP and RTCP ports for Internal Page 23	0000-9999	8150 (8151)
Internal Page 24 RTP & RTCP ports	RTP and RTCP ports for Internal Page 24.	0000-9999	8152 (8153)
Internal Page 25 RTP & RTCP ports	RTP and RTCP ports for Internal Page 25	0000-9999	8154 (8155)
Internal Page 26 RTP & RTCP ports	RTP and RTCP ports for Internal Page 26.	0000-9999	8156 (8157)
Internal Page 27 RTP & RTCP ports	RTP and RTCP ports for Internal Page 27	0000-9999	8158 (8159)
Internal Page 28 RTP & RTCP ports	RTP and RTCP ports for Internal Page 28.	0000-9999	8160 (8161)
Internal Page 29 RTP & RTCP ports	RTP and RTCP ports for Internal Page 29.	0000-9999	8162 (8163)
Internal Page 30 RTP & RTCP ports	RTP and RTCP ports for Internal Page 30.	0000-9999	8164 (8165)
Internal Page 31 RTP & RTCP ports	RTP and RTCP ports for Internal Page 31	0000-9999	8166 (8167)
Internal Page 32 RTP & RTCP ports	RTP and RTCP ports for Internal Page 32.	0000-9999	8168 (8169)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Internal Page 33 RTP & RTCP ports	RTP and RTCP ports for Internal Page 33.	0000-9999	8170 (8171)
Internal Page 34 RTP & RTCP ports	RTP and RTCP ports for Internal Page 34.	0000-9999	8172 (8173)
Internal Page 35 RTP & RTCP ports	RTP and RTCP ports for Internal Page 35.	0000-9999	8174 (8175)
Internal All Page RTP & RTCP ports	RTP and RTCP ports for Internal All Call Page	0000-9999	8176 (8177)
External Page 1 RTP & RTCP ports	RTP and RTCP ports for External Page 1.	0000-9999	8178 (8179)
External Page 2 RTP & RTCP ports	RTP and RTCP ports for External Page 2.	0000-9999	8180 (8181)
External All Page RTP & RTCP ports	RTP and RTCP ports for External All Call Page.	0000-9999	8182 (8183)
All Call Page RTP & RTCP ports	RTP and RTCP ports for All Call Page.	0000-9999	8184 (8185)
PTT 1 RTP & RTCP ports	RTP and RTCP ports for PTT group 1.	0000-9999	8146 (8147)
PTT 2 RTP & RTCP ports	RTP and RTCP ports for PTT group 2.	0000-9999	8148 (8149)
PTT 3 RTP & RTCP ports	RTP and RTCP ports for PTT group 3.	0000-9999	8150 (8151)
PTT 4 RTP & RTCP ports	RTP and RTCP ports for PTT group 4.	0000-9999	8152 (8153)
PTT 5 RTP & RTCP ports	RTP and RTCP ports for PTT group 5.	0000-9999	8154 (8155)
PTT 6 RTP & RTCP ports	RTP and RTCP ports for PTT group 6.	0000-9999	8156 (8157)
PTT 7 RTP & RTCP ports	RTP and RTCP ports for PTT group 7.	0000-9999	8158 (8159)
PTT 8 RTP & RTCP ports	RTP and RTCP ports for PTT group 8.	0000-9999	8160 (8161)
PTT 9 RTP & RTCP ports	RTP and RTCP ports for PTT group 9.	0000-9999	8162 (8163)
PTT All RTP & RTCP ports	RTP and RTCP ports for PTT group ALL	0000-9999	8164 (8165)
BGM Internal VSF	RTP and RTCP ports for VSF/VMIM BGM	0000-9999	8206 (8207)
SLT MOH 1	RTP and RTCP ports for SLT MOH1	0000-9999	8208 (8209)
SLT MOH 2	RTP and RTCP ports for SLT MOH2	0000-9999	8210 (8211)
SLT MOH 3	RTP and RTCP ports for SLT MOH3	0000-9999	8212 (8213)
SLT MOH 4	RTP and RTCP ports for SLT MOH4	0000-9999	8214 (8215)
SLT MOH 5	RTP and RTCP ports for SLT MOH5	0000-9999	8216 (8217)

3.5.5.6 DISA COS

Re: **PGM CODE** 166

Selecting DISA COS will display the DISA COS data entry page, Figure 3.5.5.6-1.

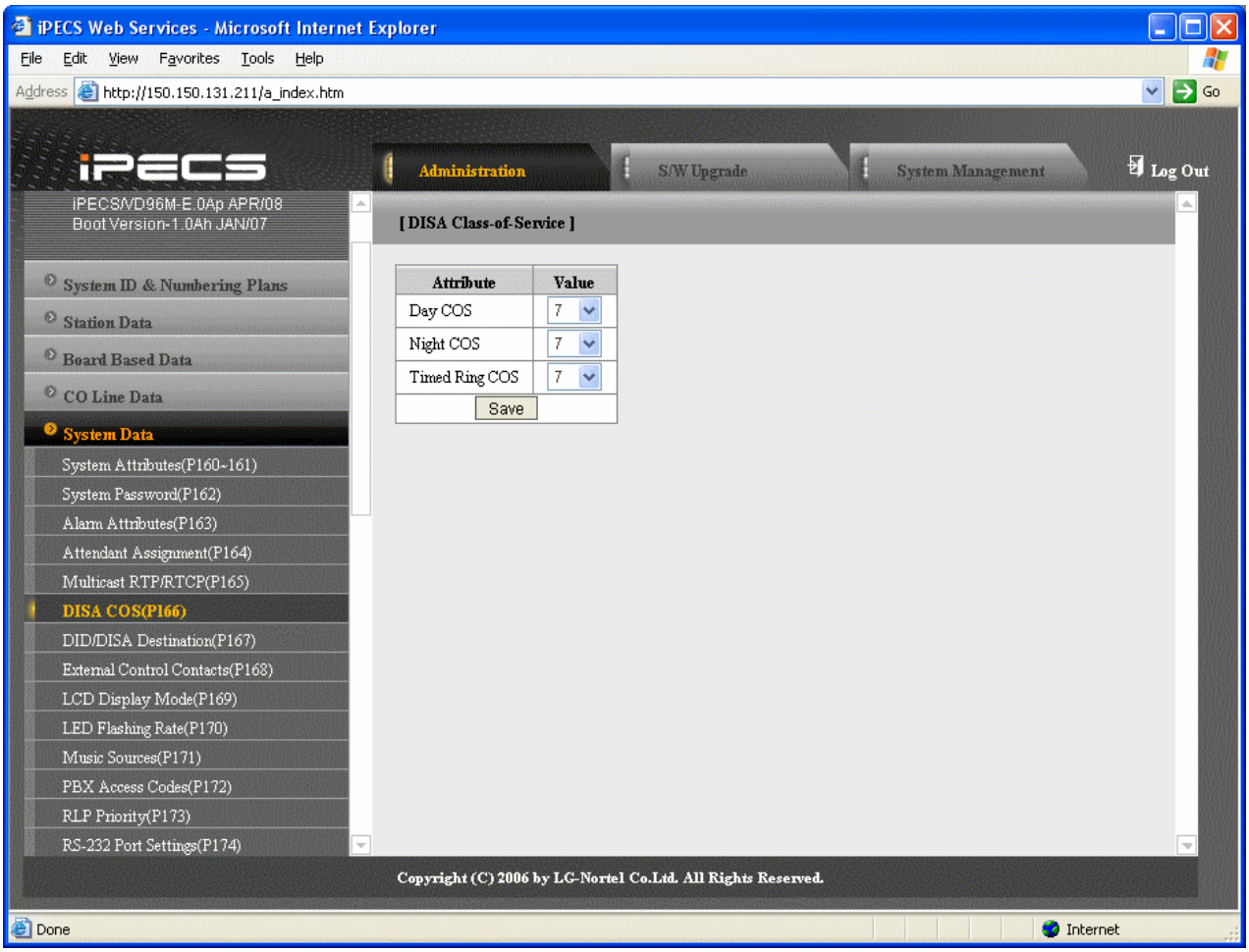


Figure 3.5.5.6-1 DISA COS

A DISA user is subject to the dialing restrictions assigned in the DISA Class-of-Service (COS). The restrictions applied are the same as with the corresponding Station COS levels 1~11 and interact with the CO/IP COS in the same manner. An assignment is made for Day, Timed and Night Ring mode of system operation. The default for all three modes (Day, Timed and Night) of DISA COS is 1, no restrictions.

3.5.5.7 DID/DISA Destination

Re: **PGM CODE** 167

Selecting DID/DISA Destination will display the DID/DISA Destination data entry page, Figure 3.5.5.7-1.

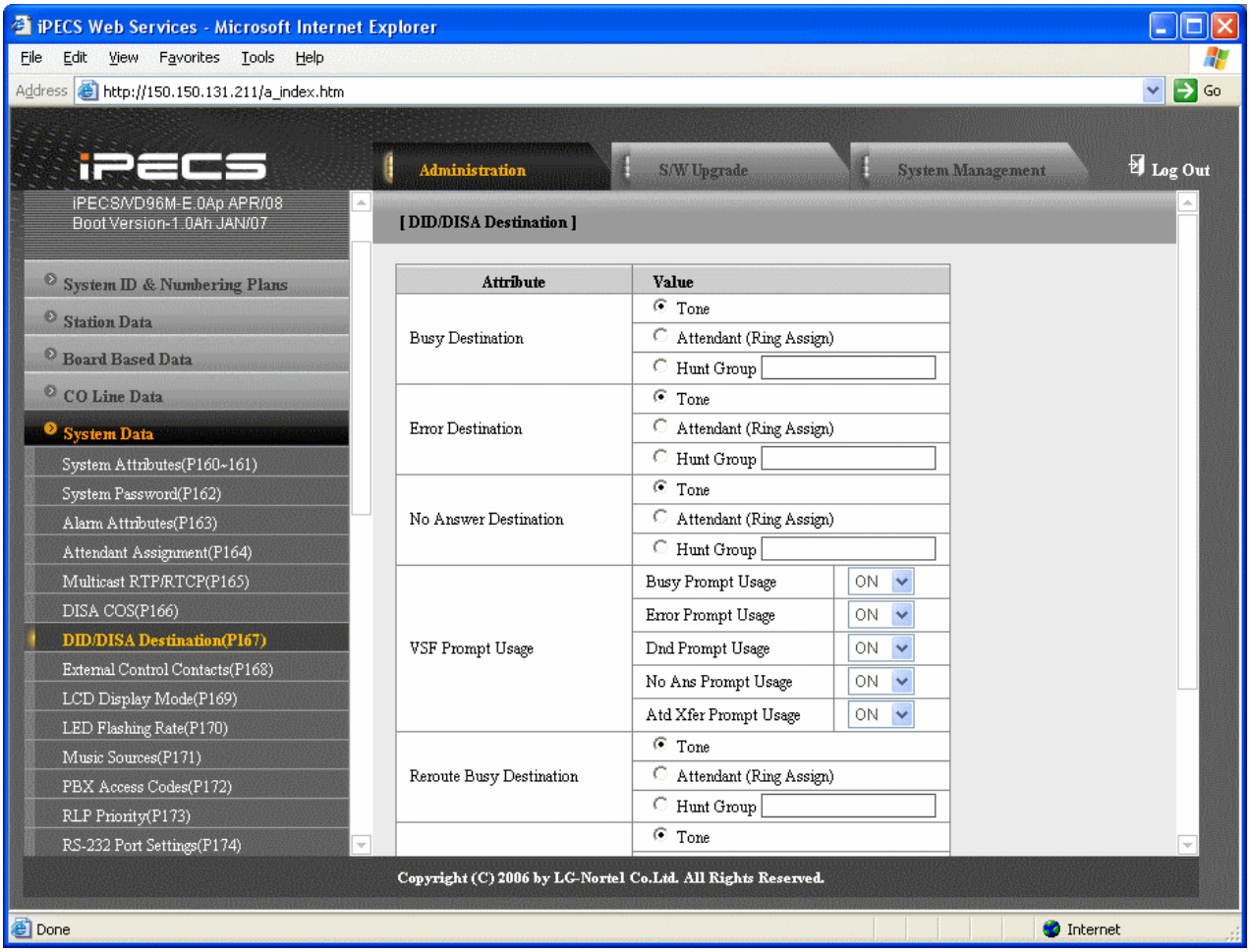


Figure 3.5.5.7-1 DID/DISA Destination

When a DID line or DISA user dials an invalid/vacant or busy station number the caller will be sent to the assigned destination. The destination is separately defined for invalid, busy, and No Answer conditions and can be defined as the Attendant, busy tone or a Station Group. For calls on a DID line to a busy station, DID Call Wait can be assigned, refer to Station Attributes section 3.5.2.2.

Also, for DID calls only, announcements (prompts) can be sent from the VSF to the caller for various conditions, busy, error, DND, No Answer, or Attendant Transfer.

3.5.5.8 External Control Contacts

Re: **PGM CODE** 168

Selecting External Control Contacts will display the External Control Contact data entry page, Figure 3.5.5.8-1.

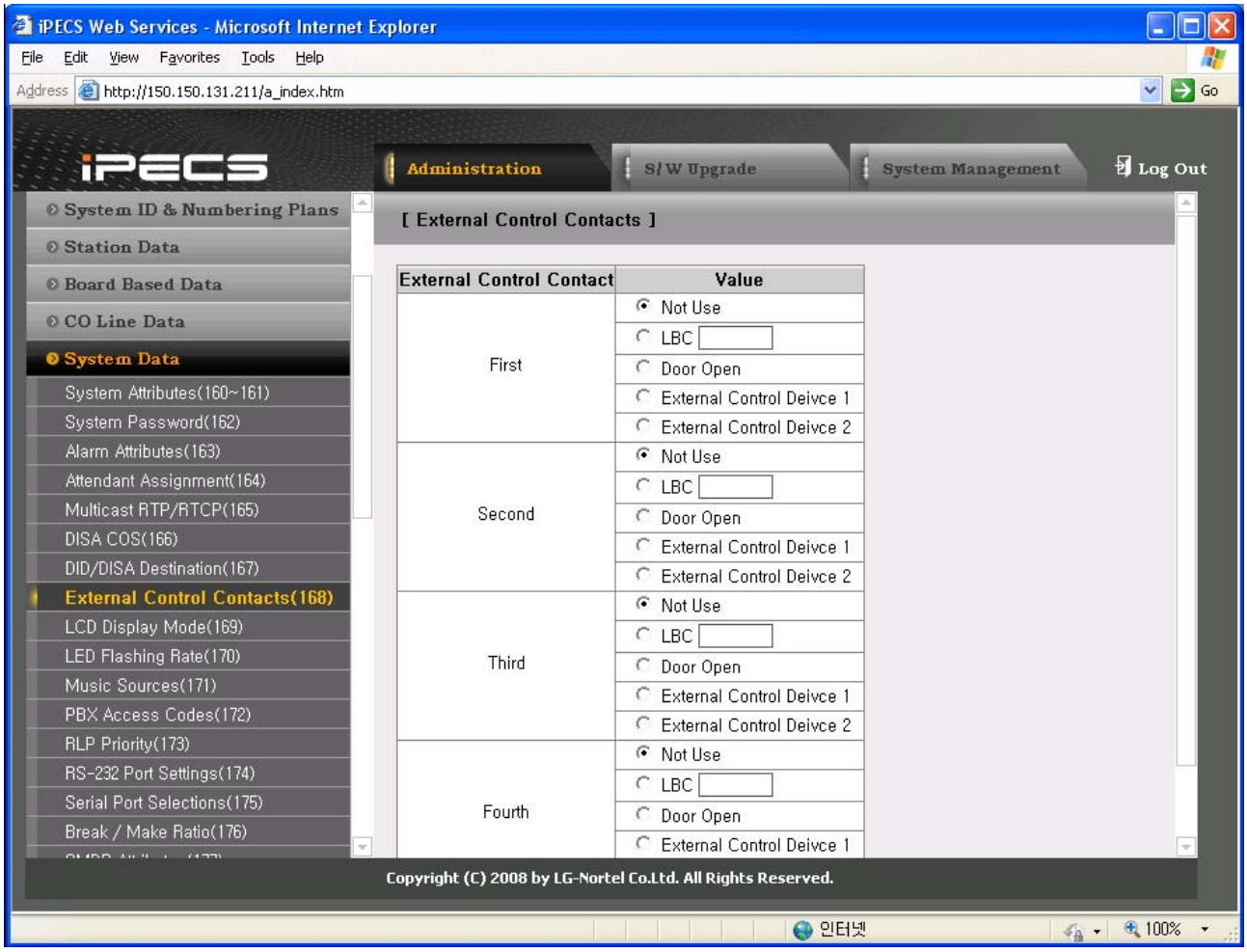


Figure 3.5.5.8-1 External Control Contact

The MFIMs include programmable contacts, which can be used to control external devices. Refer to Figure 3.5.5.8-1 for number of available contacts. Each contact is assigned to activate under one of several conditions. As a Loud Bell Contact (LBC), the contact will activate when the assigned station or group receives an external call. For LBC, when the system is in the Night or Timed Ring mode, the contact will activate for incoming UNA calls and will ignore any station assignment. The contact may alternatively activate as a Door Lock Release contact, when External Page Zone 1 is accessed or when External Page Zone 2 is accessed.

3.5.5.9 LCD Display Mode

Re: **PGM CODE** 169

Selecting LCD Display Mode will display the data entry page, Figure 3.5.5.9-1.

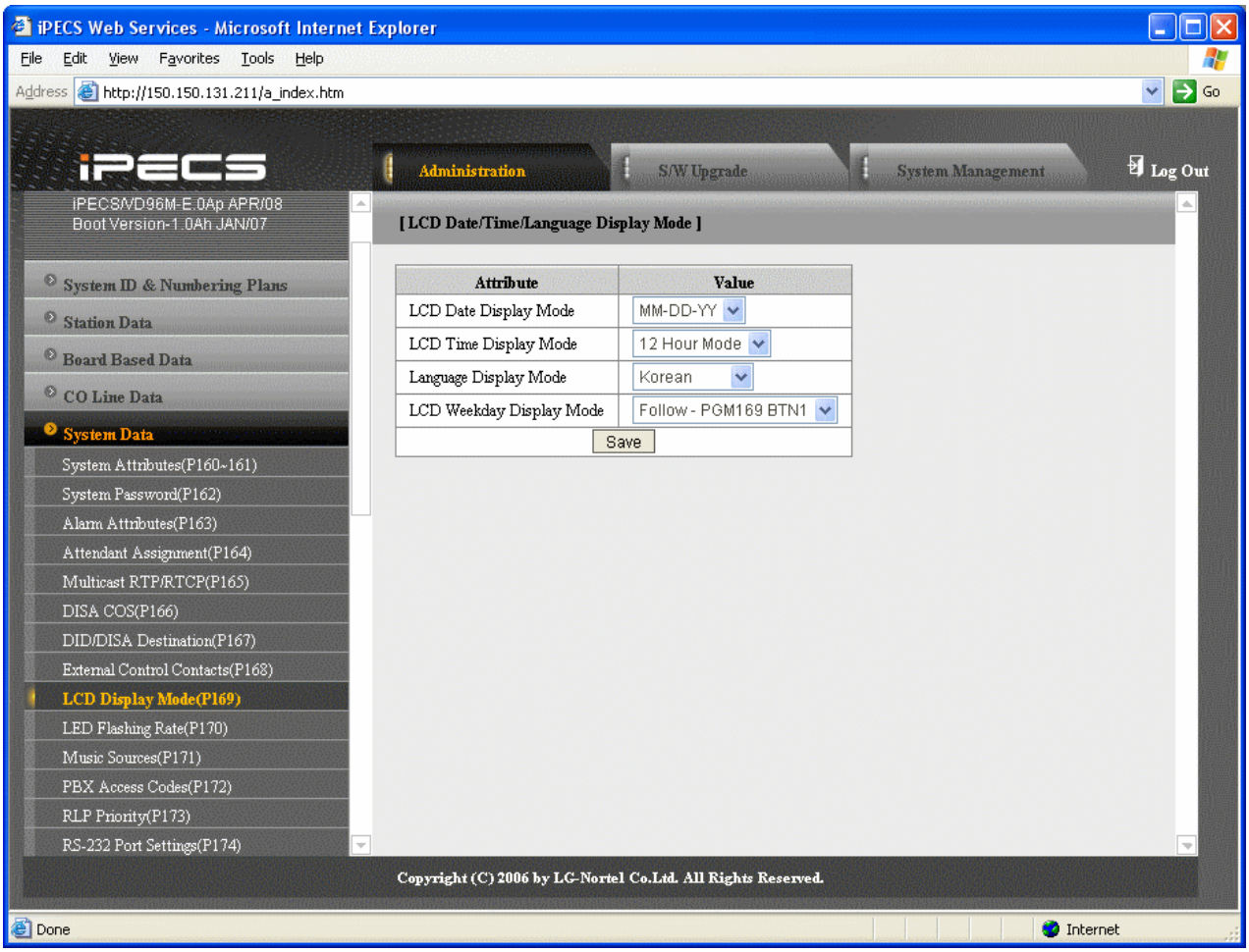


Figure 3.5.5.9-1 LCD Display Mode

The LCD display mode sets the time (12/24 hr), date (day/month order) and language. Refer to Table 3.5.5.9-1 and Table 3.5.5.9-2 for a description of the modes and the data entries required.

Table 3.5.5.9-1 LCD DISPLAY MODES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
LCD Date Display Mode	Sets the Date display as month/day or day/month.	MM-DD-YY DD-MM-YY	DD-MM-YY
LCD Time Display Mode	Sets the Time display mode as 12 hour or 24-hour (military) time.	12 Hour Mode 24 Hour Mode	12 Hour
Language Display Mode	Sets the Language used in the display; refer to Table 3.5.5.9-2 below.		English

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
LCD Weekday Display Mode	Sets the Day-of-Week (DoW) display mode: 0 no DoW 1: display mmm/dd/DoW,(alpha month display, overrides setting of button 1 above. 2: display mm/dd/DoW, numeric month display, overrides setting of button 1 above.	Follow - PGM169 BTN1 TYPE1 (MM/DD WDY) TYPE2 (MM DD WDY)	Follow - PGM169 BTN1

Table 3.5.5.9-2 LCD LANGUAGE SELECTION

LANGUAGE
English
Italian
Finnish
Dutch
Swedish
Danish
Norwegian
Hebrew
German
French
Portuguese
Spanish
Korean
Estonia
Russian

3.5.5.10 LED Flashing Rate

Re: **PGM CODE** 170

Selecting LED Flashing Rate will display the data entry page, Figure 3.5.5.10-1.

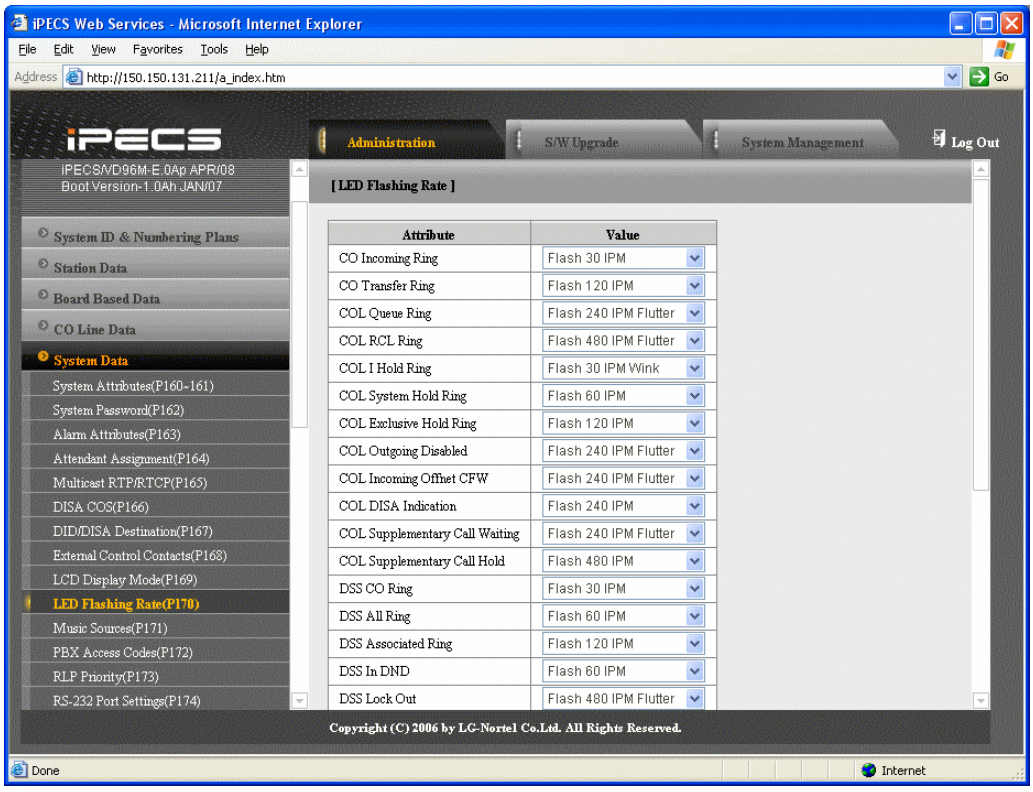


Figure 3.5.5.10-1 LED Flashing Rate

The LED flash rate for various functions and states can be assigned any one of the system's 15 signals. The various functions and states are shown in Table 3.5.5.10-1. The 15 flash signals available in the system are shown in Table 3.5.5.10-2.

Table 3.5.5.10-1 LED INDICATION

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Incoming Ring	CO button Incoming ring flashing rate.	00-14	FLASH 30 IPM (2)
CO Transfer Ring	CO button transfer ring flashing rate.	00-14	FLASH 120 IPM (10)
COL Queue Ring	CO button queue call back ring flashing rate	00-14	FLASH 240 IPM FLUTTER (6)
COL RCL Ring	CO button recall ring flashing rate	00-14	FLASH 480 IPM FLUTTER (7)
COL I Hold Ring	CO button I hold flashing rate	00-14	FLASH 30 IPM WINK (12)
COL System Hold Ring	CO button system hold flashing rate	00-14	FLASH 60 IPM (3)

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
COL Exclusive Hold Ring	CO button exclusives hold flashing rate	00-14	FLASH 120 IPM (10)
COL Outgoing Disabled	CO button outgoing disabled flashing rate	00-14	FLASH 240 IPM FLUTTER (6)
COL Incoming Offnet CFW	CO button incoming off-net call forward flashing rate	00-14	FLASH 240 IPM FLUTTER (6)
COL DISA Indication	CO button DISA indication flashing rate	00-14	FLASH 240 IPM (5)
COL Supplementary Call Waiting	CO button supplementary call waiting flashing rate	00-14	FLASH 240 IPM FLUTTER (6)
COL Supplementary Call Hold	CO button supplementary hold flashing rate	00-14	FLASH 480 IPM (8)
DSS CO Ring	DSS button CO ring flashing rate	00-14	FLASH 30 IPM (2)
DSS All Ring	DSS button ICM ALL ring flashing rate	00-14	FLASH 60 IPM (3)
DSS Associated Ring	DSS button ICM ring associate device flashing rate	00-14	FLASH 120 IPM (10)
DSS Incoming Ring	DSS button station is in DND	00-14	FLASH 60 IPM (3)
DSS Lock Out	DSS button station is in lock out	00-14	FLASH 480 IPM FLUTTER (7)
DSS Pre-select Message	DSS button station is in pre-selected message	00-14	FLASH 30 IPM (2)
DSS ICM Hold	DSS button station is in ICM hold	00-14	FLASH 60 IPM (3)
DSS Other	DSS button station is in other state	00-14	FLASH 120 IPM (10)
UCD Queue Ring 2	CIQ #1 Threshold.	00-14	FLASH 60 IPM (3)
UCD Queue Ring 6	CIQ #2 Threshold.	00-14	FLASH 120 IPM (10)
UCD Queue Ring 7-X	CIQ #3 Threshold.	00-14	FLASH 240 IPM (5)
UCD DND (Off Duty)	UCD a agent is off duty (UCD DND)	00-14	FLASH 120 IPM (10)
UCD Warning	UCD warning tone	00-14	FLASH 120 IPM (10)
UCD Help	UCD help request/response	00-14	FLASH 120 IPM (10)
Feature Record	FEATURE voice record button	00-14	FLASH 240 IPM (5)
Feature Message Wait	FEATURE message wait	00-14	FLASH 30 IPM (2)
DSS Out-of-service state	DSS button a station is in out-of-service state	00-14	FLASH OFF (00)

Table 3.5.5.10-2 LED FLASH RATE TABLE

Flash Rate	DESCRIPTION
1	Steady On
2	30 ipm flash (30% On)
3	60 ipm flash (30% On)
4	60 ipm double wink (30% On-Off-On-Off 7 &0% On)
5	240 ipm flash (30% On)

Flash Rate	DESCRIPTION
6	240 ipm flutter (30% On-Off-On-Off-On & 70% Off)
7	480 ipm flash (30% On)
8	480 ipm flutter (30% On-Off-On-Off-On & 70% Off)
9	15 ipm flash (30% On)
10	120 ipm flash (30% On)
11	120 ipm flutter (30% On-Off-On-Off-On & 70% Off)
12	30 ipm double flash (30% On-Off-On & 70% Off)
13	480 ipm double wink (30% On-Off-On-Off 7 &0% On)
14	480 ipm double flash (30% On-Off-On & 70% Off)

3.5.5.11 Music Sources

Re: **PGM CODE** 171

Selecting Music Sources will display the Music Sources data entry page, Figure 3.5.5.11-1.

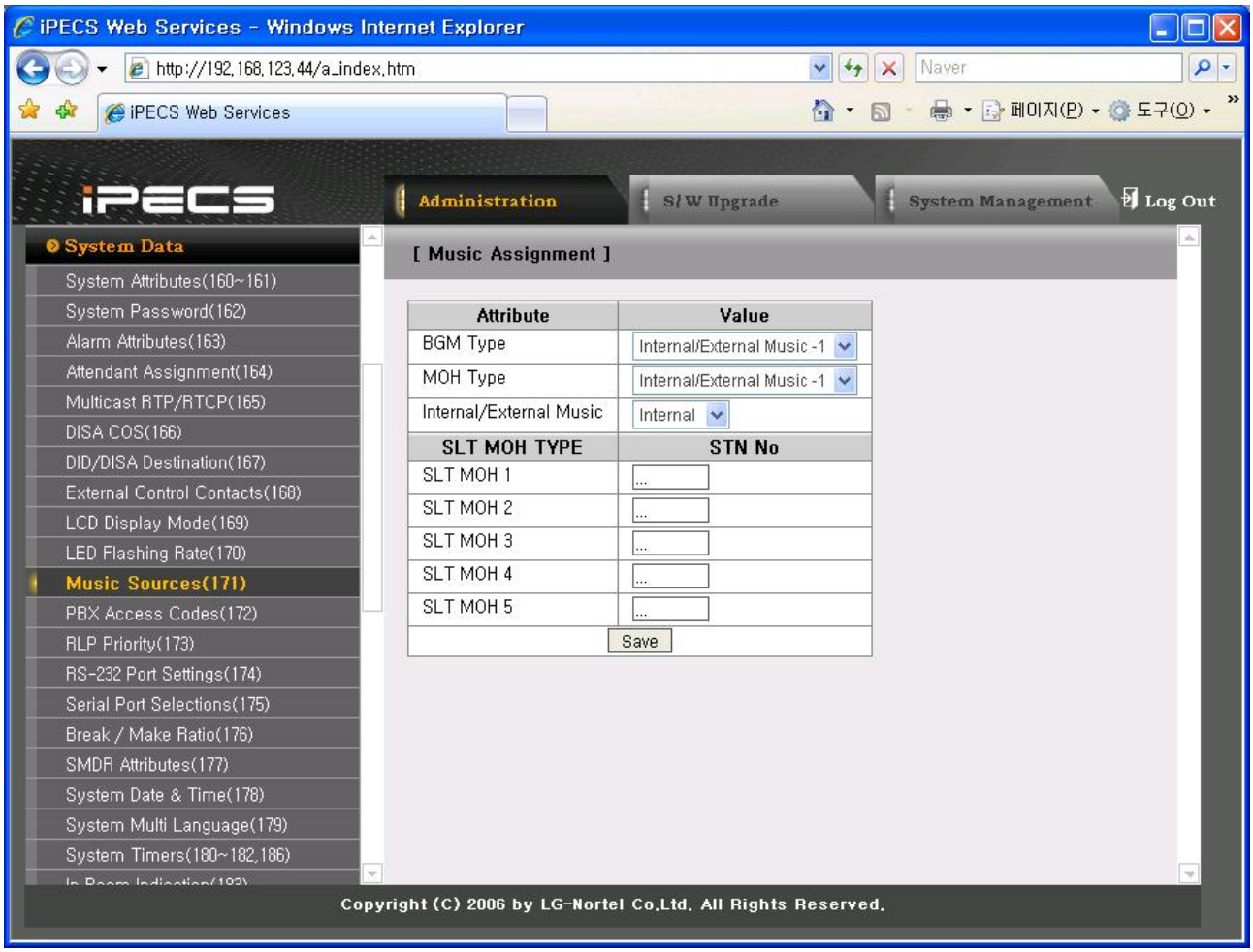


Figure 3.5.5.11-1 Music Sources

Music inputs are provided for use as the Background Music and/or Music-On-Hold source inputs. iPECS-Micro has a single virtual input, iPECS-50 has a single input, other MFIMs provide for 2 inputs. The first input can be either the internal source or the external BGM1 except iPECS-Micro (iPECS-Micro does not has an external BGM source). Note that the BGM1 input on the front panel of the MFIM and the BGM1 input on the rear panel of the MFIM are electrically connected and only one (1) should be used; refer to the iPECS Description and Installation Manual section 4.4.2. In addition, a VSF or VMIM announcement may be recorded and played as MOH to the connected caller. And SLTM is used as MOH to the holded caller.

3.5.5.12 PBX Access Codes

Re: **PGM CODE** 172

Selecting PBX Access Codes will display the PBX Access Codes data entry page, Figure 3.5.5.12-1.

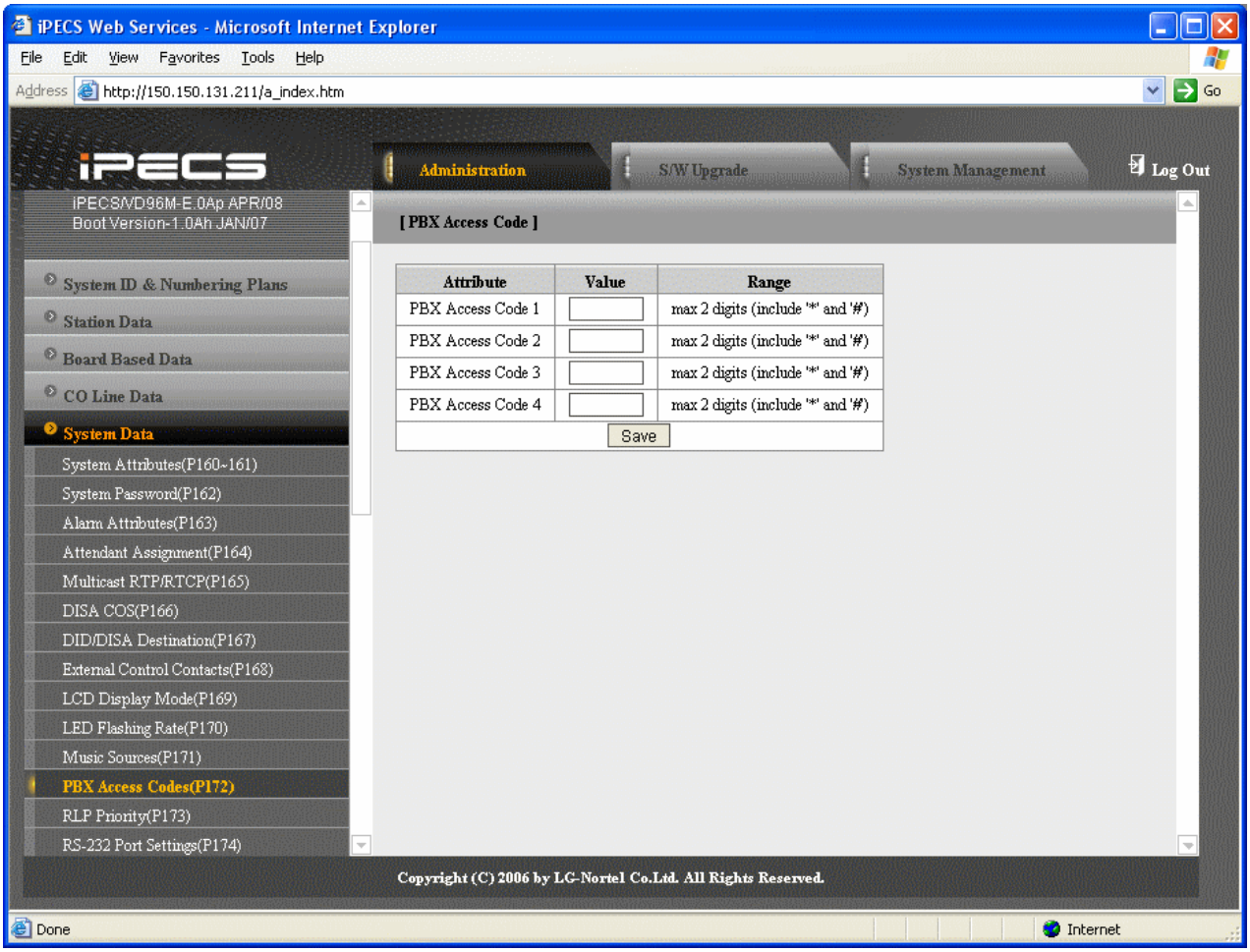


Figure 3.5.5.12-1 PBX Access Codes

When the system is used “behind” a PBX/CTX, the system needs to recognize the PBX/CTX Trunk access codes to implement proper dialing restriction, tone detection sequences and Flash timing. A maximum of four (4) Trunk Access Codes of one (1) or two (2) digits can be entered.

3.5.5.13 Ringing Line Preference Priority

Re: **PGM CODE** 173

Selecting Ring Line Preference Priority will display the Ringing Line Preference Priority data entry page, Figure 3.5.5.13-1.

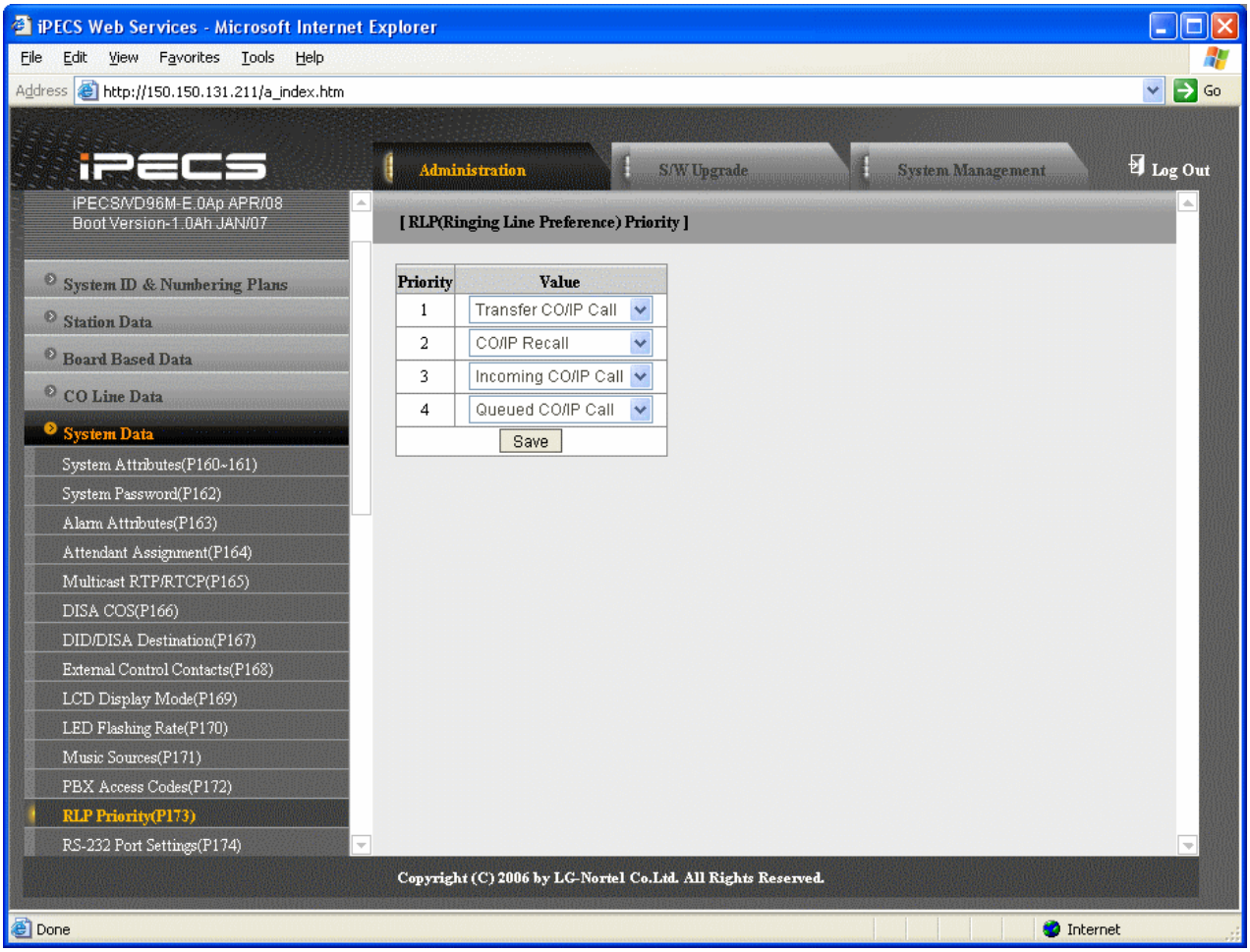


Figure 3.5.5.13-1 Ringing Line Preference Priority

When multiple calls are ringing at a station assigned Ringing Line Preference, the order of preference is based on the type of call: CO/IP Transfer, CO/IP Recall, Incoming call, CO/IP Queue. ICM calls are always assigned the lowest priority.

3.5.5.14 RS-232 Port Settings

Re: **PGM CODE** 174

Selecting RS-232 Port Settings will display the RS-232 Port Settings data entry page, Figure 3.5.5.14-1.

Figure 3.5.5.14-1 RS232 Port Settings

The iPECS-50 and MFIM100 have a single RS-232 port while other MFIMs have two (2) RS-232 ports, refer to the iPECS Description and Installation Manual, Section 4.4.2. Certain characteristics of each port are programmable including baud rate, RS 232 control, and page settings. Refer to Table 3.5.5.14-1 for a description of the settings and the data entries available.

Table 3.5.5.14-1 RS232 PORT SETTINGS

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Baud Rate	This entry establishes the BAUD rate for the RS-232 serial port.	NOT USED 9600 19200 38400 57600 115200	115200

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CTS/RTS	The system's RS232 port can support Clear-to-Send (CTS) and Ready-to-Send (RTS), control leads.	ON OFF	OFF
Page Break	The system can send a page break command over the serial port at the end of each page. See Lines per Page below for page length set-up.	ON OFF	OFF
Line Per Page	This entry sets the page length, the number of lines the system will send before sending the page break.	001~199	66
XON/XOFF	This entry enables/disables XON/XOFF protocol.	XON XOFF	XOFF

3.5.5.15 Serial Port Function Selections

Re: **PGM CODE** 175

Selecting Serial Port Selections will display the Serial Port Function Selections data entry page, Figure 3.5.5.15-1. For each function select the desired output using the drop-down menu and, if a TCP channel is assigned, enter the TCP port.

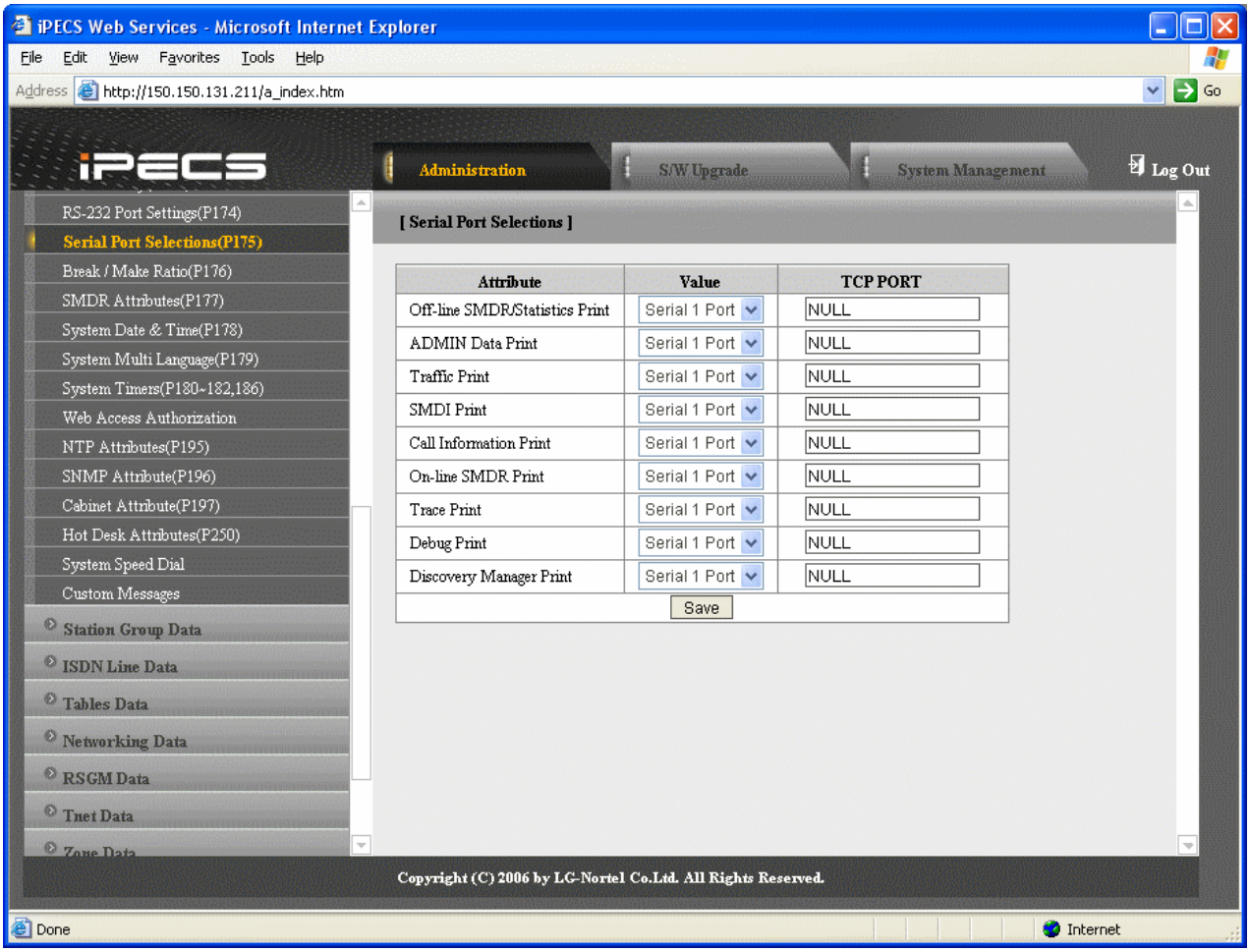


Figure 3.5.5.15-1 Serial Port Selections

The iPECS-50 and MFIM100 have a single RS-232 port while other MFIMs have two (2) RS-232 ports, refer to the iPECS Description and Installation Manual, Section 4.4.2. In addition, the system has three (3) TCP Channels and nine (9) TCP Port connections available from the MFIM. A serial port (SERIAL 1 or SERIAL 2) is assigned to each function that requires an RS 232 output. In addition, one of the three (3) TCP channels and one (1) TCP Port may be assigned to each function that requires a TCP connection. Each function can select only one output.

3.5.5.16 Break/Make Ratio

Re: **PGM CODE** 176

Selecting Break/Make Ratio will display the Break/Make Ratio data entry page, Figure 3.5.5.16-1.

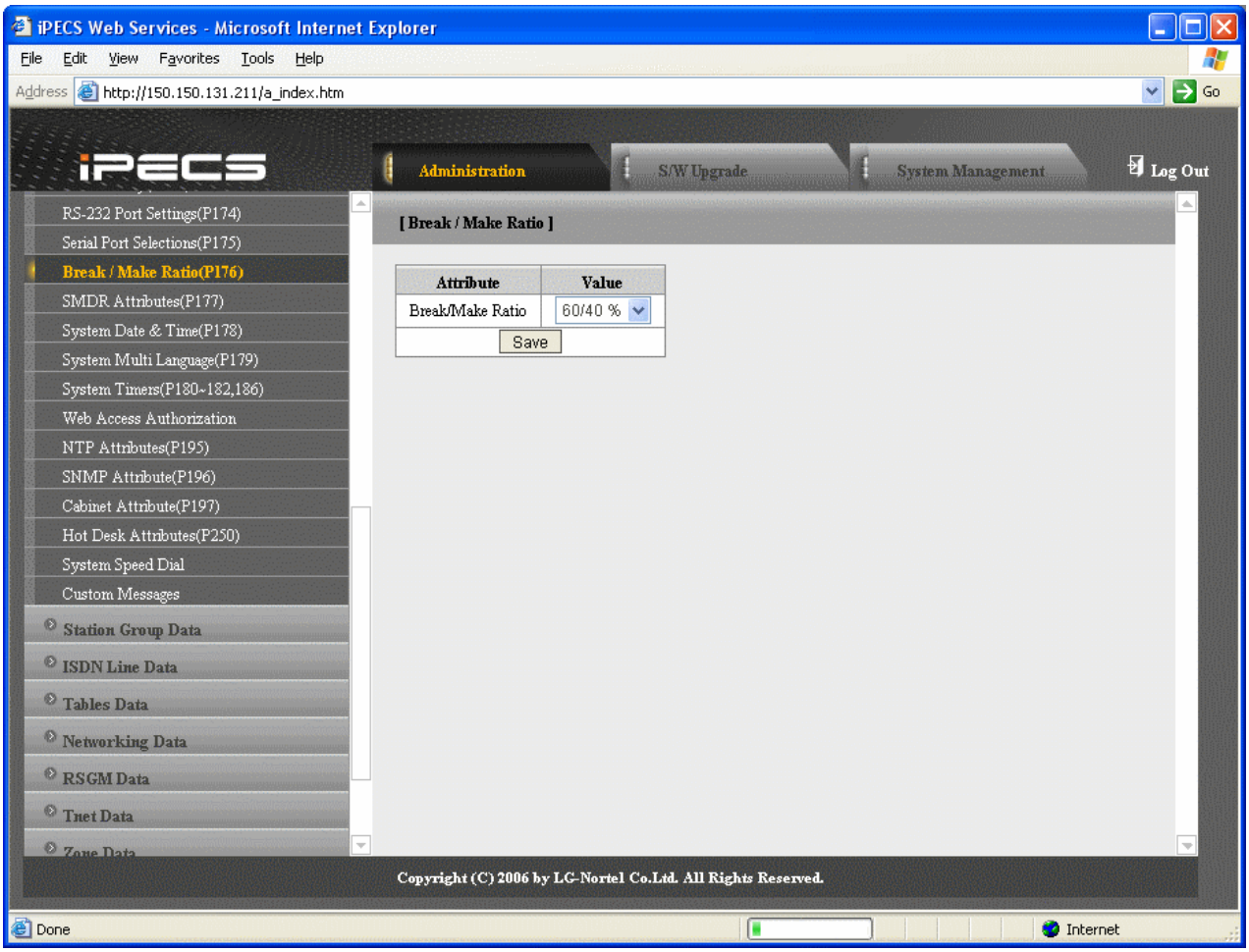


Figure 3.5.5.16-1 Break/Make Ratio

For Pulse dial CO Lines, the system supports 10pps and break/make ratios of 60/40% or 66/34%.

3.5.5.17 SMDR Attributes

Re: **PGM CODE** 177

Selecting SMDR Attributes will display the SMDR Attributes data entry page, Figure 3.5.5.17-1.

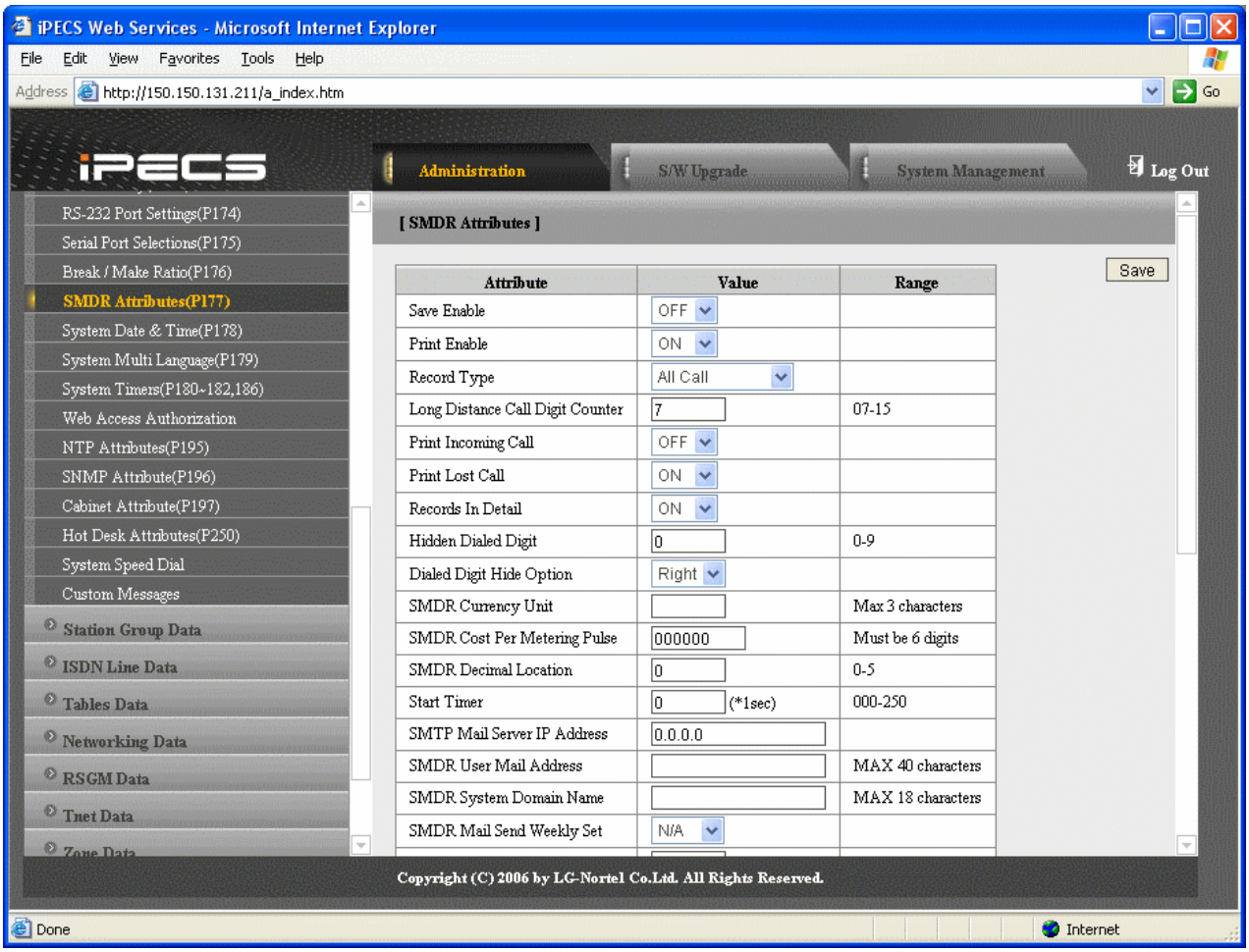


Figure 3.5.5.17-1 SMDR Attributes

Station Message Detail Recording (SMDR), which is output over an RS 232 port or TCP channel, contains details on both incoming and outgoing calls. Various SMDR attributes can be assigned including; output records for all calls or LD only, call cost per pulse when using call metering, etc. Refer to Table 3.5.5.17-1 for a description of each Attribute and the data entries required.

Table 3.5.5.17-1 SMDR ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Save Enable	The system can output all outgoing call records (ON) or, to allow for PSTN call set-up times, only records for calls that exceed the SMDR Timer (OFF). For SMDR Timer settings refer to “Start Timer “, below.	ON OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Print Enable	The system can output SMDR records automatically as they occur (real-time) or only when requested. When this attribute is ON, SMDR is sent at call completion.	ON OFF	ON
Record Type	The system can record all outgoing calls or only long distance calls. Long distance calls are identified by the LD digit count and LD codes assigned in “Long Distance Call Digit Counter” and “Long Distance Code” below.	LD ALL calls	LD
Long Distance Call Digit Counter	Dialed numbers, which exceed the assigned LD digit count are considered long distance calls for SMDR and COS purposes.	07-15	07
Print Incoming Call	The system can output records for Incoming calls as well as outgoing calls. If enabled, incoming as well as outgoing calls are recorded.	ON OFF	OFF
Print Lost Call	When incoming call records are enabled, the system can also provide records for unanswered incoming (abandoned) calls.	ON OFF	ON
Records In Detail	The system can output detailed call records (ON) or summary call information (total number of calls, cost and cost for each station).	ON OFF	ON
Hidden Dialed Digit	For security purposes, digits dialed for an outgoing call can be hidden and replaced with “*”. This field defines the number of digits to hide. The Dialed Digit Hide Option below defines whether leading or trailing digits are hidden The station must be assigned for SMDR Hidden digits in Station Attributes section 3.5.2.2.	0~9	0
Dialed Digit Hide Option	When “HIDDEN DIALED DIGIT” is enabled, above, this field determines if leading or trailing digits are hidden.	Right Left	Right
SMDR Currency Unit	The unit of currency used for call cost can be identified with 3-characters for easy reference.	Max 3 Characters	-
SMDR Cost Per Metering Pulse	When call metering is provided by the PSTN, the cost per metering pulse can be assigned.	6-digits	000000
SMDR Decimal Location	This value determines the position of the decimal in the Cost per Pulse entry above, starting from the right most digit.	0~5	0
Start Timer	To allow for call set-up times through the PSTN, a “Valid call timer” can be set.	000~250 (msec)	000
SMTP Mail Server IP Address	SMTP Mail server address to receive e-mail SMDR reports.	12 digits	
SMDR User Mail Address	IP Address to which system sends SMDR data.	40 Characters	
SMDR System Domain Name	Domain name of SMTP Mail server to receive SMDR reports. Use this field in place of SMTP Mail Server IP Address above.	Max 18 Characters	
SMDR Mail Send Weekly Set	Sets day of week to send SMDR data weekly (0 for no weekly data, 1-7 for Monday through Sunday).	N/A day	N/A

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
SMDR Mail Send Daily Set	Sets time-of-day for SMDR data sent on a daily basis (00 for no daily records, 01-23 for hour of the day).	00~23	00
SMDR Mail Auto Send Set	If the SMDR buffer is full, the system will automatically send a notification e-mail.	ON OFF	OFF
SMDR Mail Auto Delete Set	Delete SMDR records after sending e-mail.	ON OFF	OFF
Long Distance Code	For SMDR and COS purposes, five (5) Long Distance codes of up to two (2) digits each can be assigned. If dialed as the 1st digits, the call is considered an LD call.	5 two digit LD codes, use * as wild card (any digit)	
SMDR CLI or Ring Service I	For incoming calls, the system will send the defined data item for “Field I”. The data item may be CLI, CPN or Ring Service Time. Note the User dialed number is always provided for an outgoing call.	CLI RING	RING
SMDR Ring/CLI/CPN Service II	For incoming calls, the system will send the defined data item for “Field II”. The data item may be CLI, CPN or Ring Service Time.	CLI RING	RING
MSN PRINT ON SMDR	Print MSN number Information in SMDR Record	ON OFF	OFF
Print Serial No	Print record number as part of SMDR output, will reset to 1 when SMDR capacity is reached or SMDR Mail Auto Delete Set above is enabled.	ON OFF	ON
SMDR Interface Service	When enabled, the system stores SMDR data to send to applications including NMS upon request.	ON OFF	OFF
SMDR ICM Save	When enabled, intercom call data is stored as part of the SMDR data.	ON OFF	OFF
SMDR ICM Print	When enabled, intercom call data is printed as part of the On-line SMDR.	ON OFF	OFF
SMDR Disconnect Cause	When enabled, the disconnect cause is stored in Off-line SMDR data and printed as parted of the On-line SMDR.	ON OFF	OFF

3.5.5.18 System Date & Time

Re: **PGM CODE** 178

Selecting System Date & Time will display the System Date & Time and DST data entry page, Figure 3.5.5.18-1 & Figure 3.5.5.18-1.

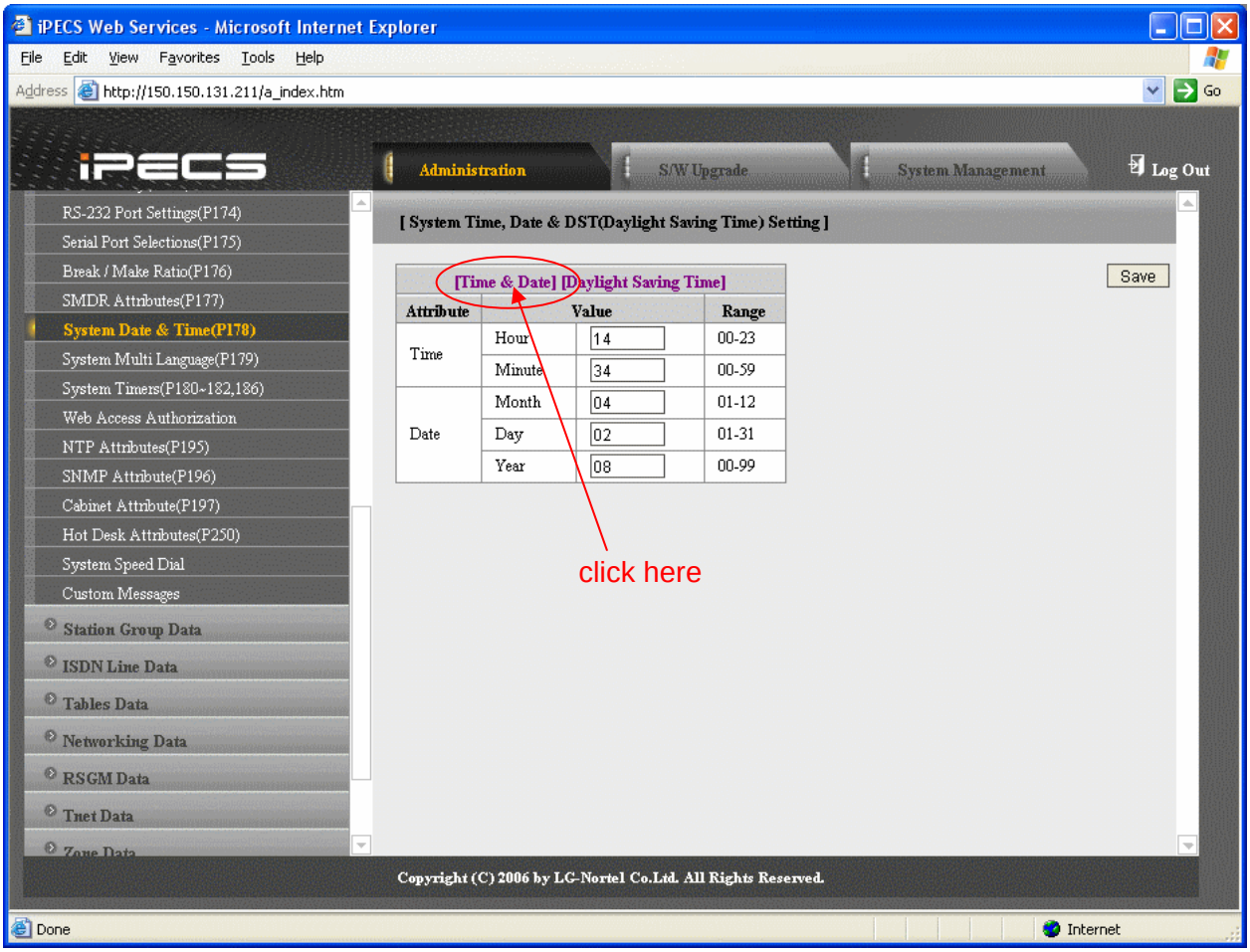


Figure 3.5.5.18-1 System Date & Time

The System Date and Time are established by the [Time & Date] menu. The date and time are employed for several features and functions including; LCR, LCD displays, SMDR outputs, Auto Ring mode Selection, Wake-up Alarm, etc.

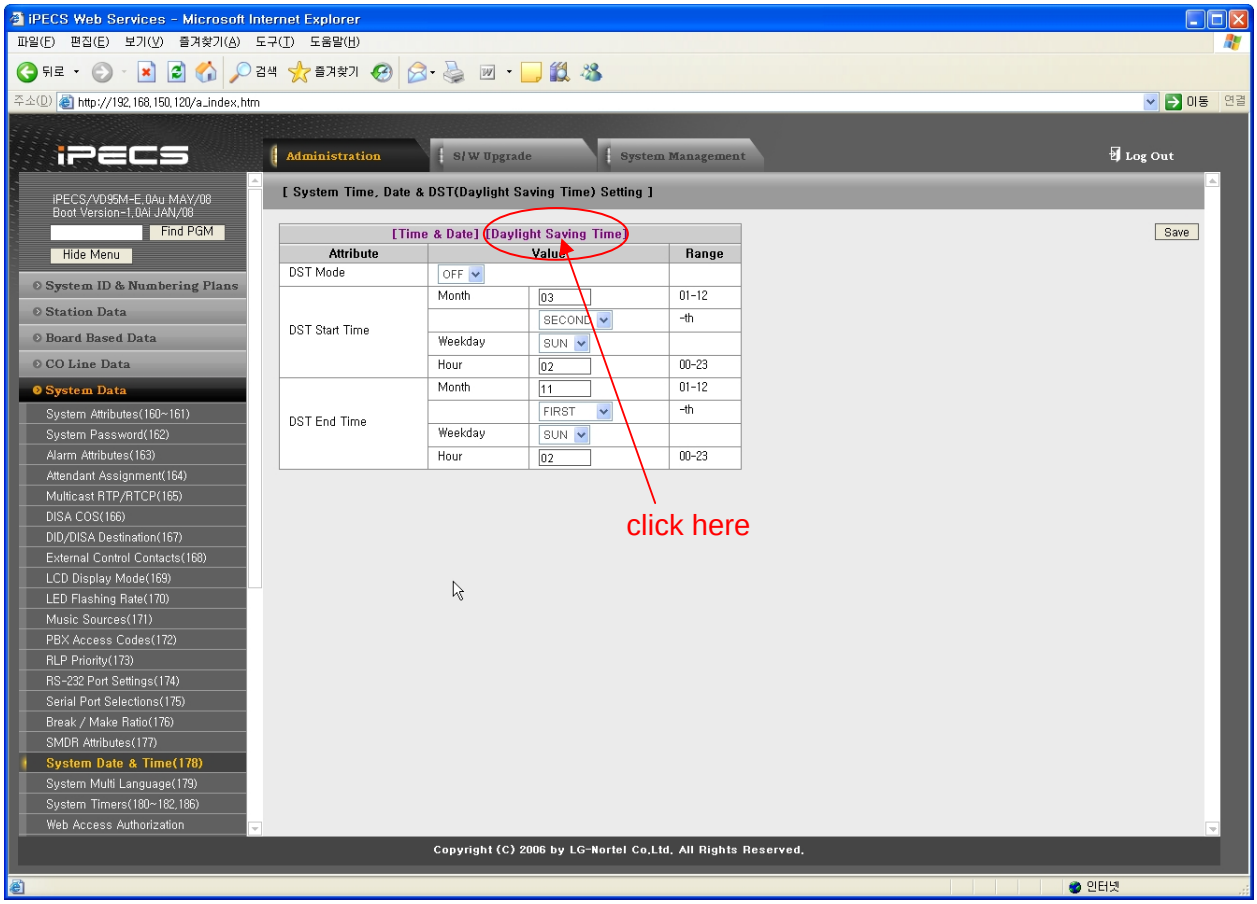


Figure 3.5.5.18-2 Daylight Saving Time

DST related parameters are established by the [Daylight Saving Time] menu. If DST is enabled the system time will be adjust one-hour forward and back at the DST start and end times, respectively.

3.5.5.19 System Multi Language

Re: **PGM CODE** 179

Selecting System Multi Language will display the System Multi Language data entry page, Figure 3.5.5.19-1.

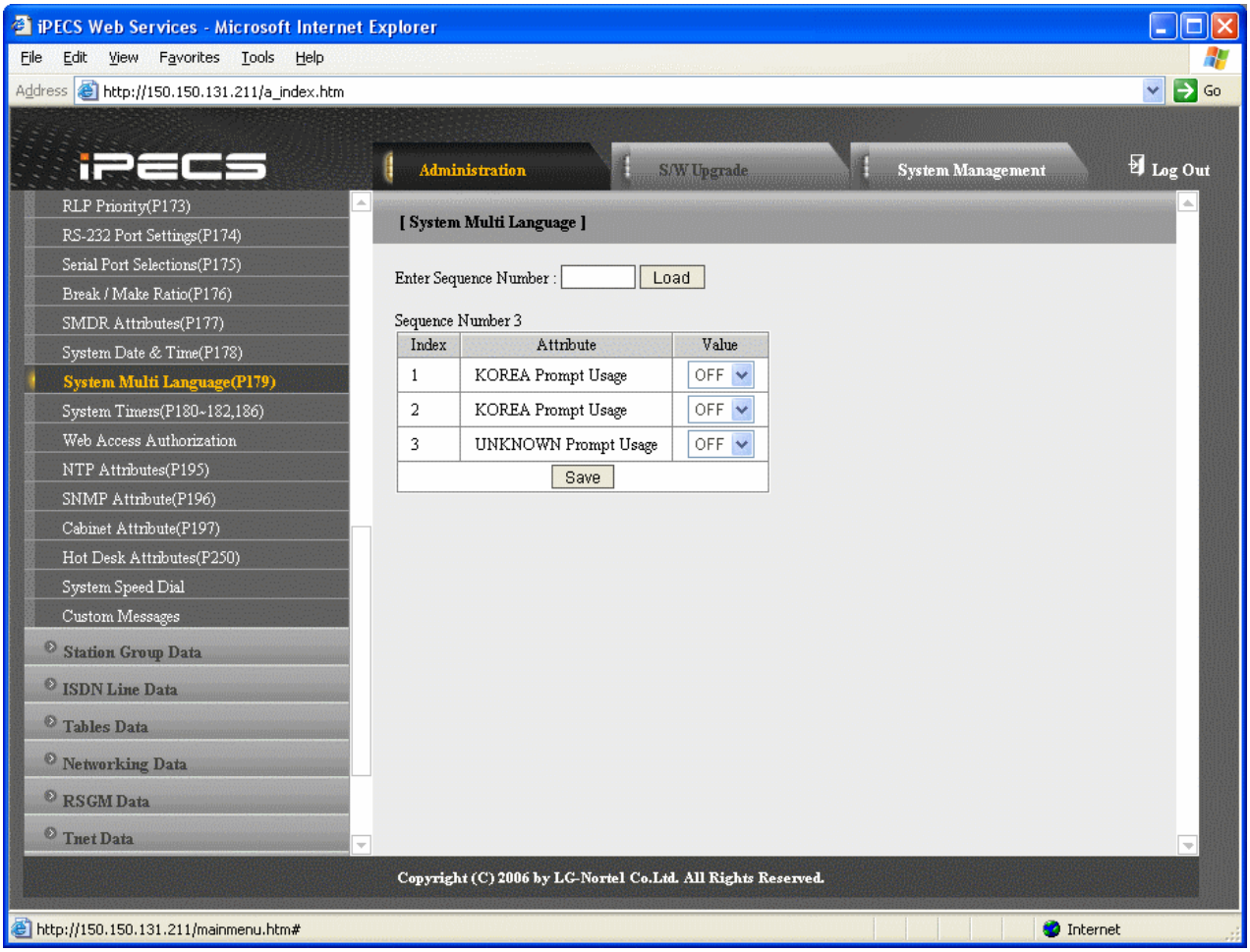


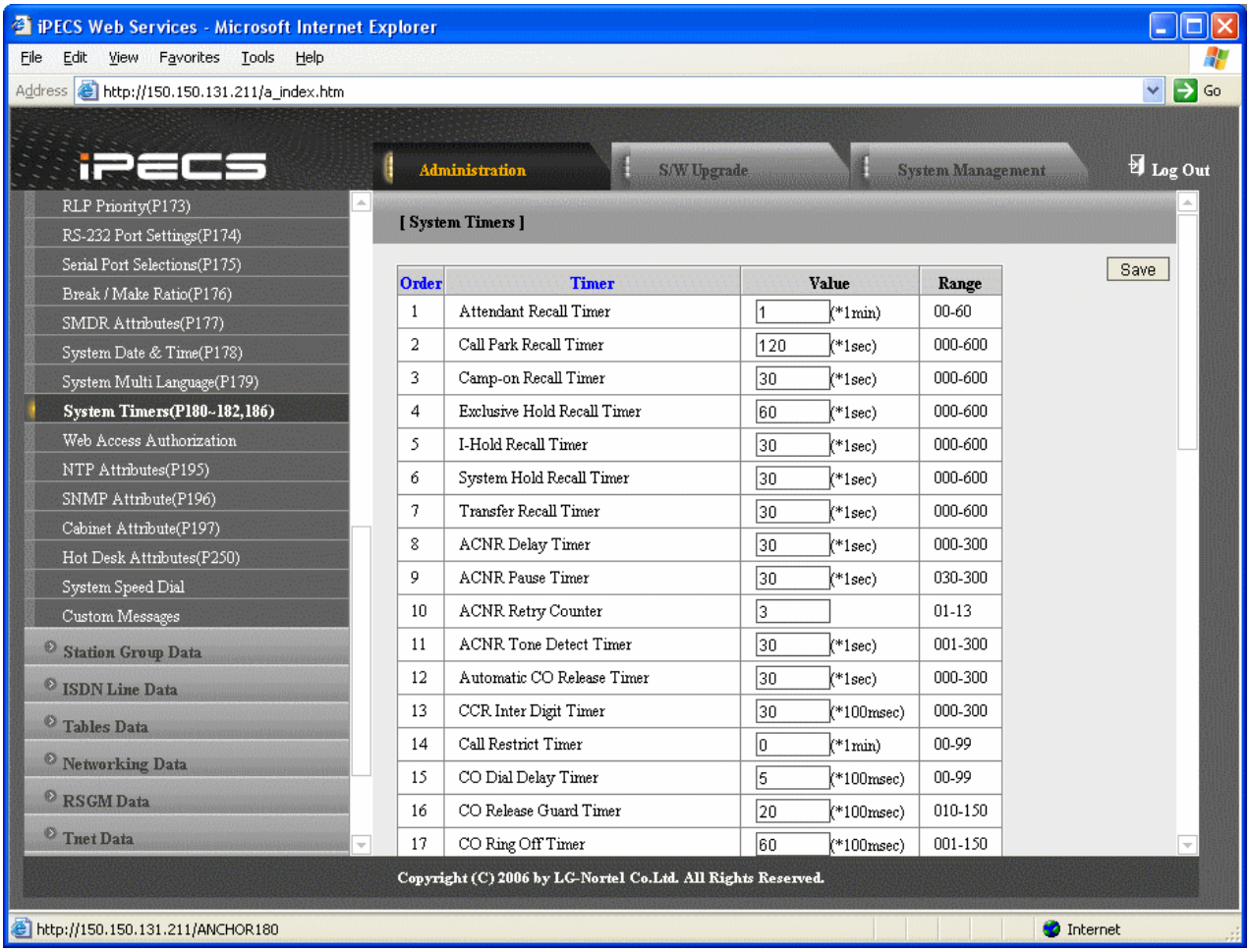
Figure 3.5.5.19-1 System Multi-Language Support

The VSF and VMIM support multiple languages; up to three languages may be supported simultaneously. Once the prompts are downloaded to the VSF/VMIM, the caller receives the Language selection announcement for DISA and CCR calls as well as proceeding a Hunt Group guaranteed announcement or DID error announcement. The language selection announcement will only affect the language prompts enabled for use.

3.5.5.20 System Timers

Re: **PGM CODES** 180 ~ 182 & 186

Selecting System Timers will display the System Timers data entry page, Figure 3.5.5.20-1. Selecting the blue colored text in the Table header will sort the table based on the selected column.


iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
Go
iPECS
Administration
S/W Upgrade
System Management
Log Out
RLP Priority(P173)
RS-232 Port Settings(P174)
Serial Port Selections(P175)
Break / Make Ratio(P176)
SMDR Attributes(P177)
System Date & Time(P178)
System Multi Language(P179)
System Timers(P180~182,186)
Web Access Authorization
NTP Attributes(P195)
SNMP Attribute(P196)
Cabinet Attribute(P197)
Hot Desk Attributes(P250)
System Speed Dial
Custom Messages
Station Group Data
ISDN Line Data
Tables Data
Networking Data
RSGM Data
Tnet Data
[System Timers]
Save
Order | Timer | Value | Range
1 Attendant Recall Timer 1 (*1min) 00-60
2 Call Park Recall Timer 120 (*1sec) 000-600
3 Camp-on Recall Timer 30 (*1sec) 000-600
4 Exclusive Hold Recall Timer 60 (*1sec) 000-600
5 I-Hold Recall Timer 30 (*1sec) 000-600
6 System Hold Recall Timer 30 (*1sec) 000-600
7 Transfer Recall Timer 30 (*1sec) 000-600
8 ACNR Delay Timer 30 (*1sec) 000-300
9 ACNR Pause Timer 30 (*1sec) 030-300
10 ACNR Retry Counter 3 01-13
11 ACNR Tone Detect Timer 30 (*1sec) 001-300
12 Automatic CO Release Timer 30 (*1sec) 000-300
13 CCR Inter Digit Timer 30 (*100msec) 000-300
14 Call Restrict Timer 0 (*1min) 00-99
15 CO Dial Delay Timer 5 (*100msec) 00-99
16 CO Release Guard Timer 20 (*100msec) 010-150
17 CO Ring Off Timer 60 (*100msec) 001-150
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http://150.150.131.211/ANCHOR180
Internet

Figure 3.5.5.20-1 System Timers

A number of timers can be assigned to control and affect many features and functions. Refer to Table 3.5.5.20-1 for a description of the timers and the input required.

Table 3.5.5.20-1 SYSTEM TIMERS

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Attendant Recall Timer	Determines the amount of time the attendant receives recall after which the system will disconnect the call.	00~60 (minutes)	01
Call Park Recall Timer	Determines the amount of time before a parked call will recall the station that parked the call.	000~600 (seconds)	120
Camp-on Recall Timer	When a call is transferred using Camp-On, this entry determines the amount of time before the station that transferred the call receives recall.	000~600 (seconds)	030

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Exclusive Hold Recall Timer	Determines the amount of time before a call placed on exclusive hold will recall the station.	000~600 (seconds)	060
I-Hold Recall Timer	Determines the amount of time a call that is recalling the station will recall before also recalling also the attendant.	000~600 (seconds)	030
System Hold Recall Timer	Determines the amount of time before a call placed on system hold will recall the station.	000~600 (seconds)	030
Transfer Recall Timer	Determines the amount of time a transferred call will ring at the receiving station before recalling the station that transferred the call.	000~600 (seconds)	030
ACNR Delay Timer	If the ACNR Pause Timer expires and no CO Line is available for ACNR recall, this timer sets the delay before ACNR attempts to access a CO line again. The ACNR retry counter is not decremented by this action.	000~300 (seconds)	030
ACNR Pause Timer	This timer establishes the time between ACNR recall attempts. (For CIS: 5-300).	030~300 (seconds)	030
ACNR Retry Counter	This counter sets the number of recall attempts for ACNR before ACNR is abandoned, for CIS : 1~9.	1~13	03
ACNR Tone Detect Timer	If call progress tones are not available for ACNR, the system will wait this duration after dialing before considering the called party as “busy/no answer”.	001~300 (seconds)	30
Automatic CO Release Timer	If a user accesses a CO/IP path and takes no action, the system will automatically release the CO/IP path when this timer expires.	000~300 (seconds)	030
CCR Inter-digit Timer	Inter-digit timer used with Customer Call Routing function.	000~300 (100 msec)	030
Call Restrict Timer	Not used. Check PGM123-Btn2	00~99 (minutes)	00
CO Dial Delay Timer	Delay for through connection to prevent illegal dialing when CO/PBX has slow response.	00~99 (100 msec)	05
CO Release Guard Timer	When a CO Line is returned to idle, the system will deny access for this time to assure the PSTN returns the CO circuitry to idle.	010~150 (100 msec)	020
CO Ring Off Timer	This timer sets the maximum ‘Off’ duration of the incoming ring cycle for the Ring Detect circuitry of the system to detect an abandoned call.	001~150 (100 msec)	060
CO Ring ON Timer	This timer sets the ‘On’ time of the incoming ring cycle for the Ring Detect circuitry of the system to recognize an incoming call.	1~9 (100 msec.)	2
Elapsed Call Timer	Users can receive a periodic tone indicating the length of an outgoing call. This timer sets the time before and between the tones. Note CO Warning Tone must be enabled for the station in Station Attributes, section 3.5.2.2.	060~900 (seconds)	180
Web Password Guard Timer	If no data packet is received during a Web connection, after the guard time a password check will be initiated by the system.	001~999 (minutes)	005
Call Forward No Answer Timer	When a user activates No-Answer Forward, calls will ring for this duration before being forward. The Station No-Answer Forward timer section 3.5.2.12 will take precedence.	000~600 (seconds)	015

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
DID/DISA No Answer Timer	A DID/DISA call to a busy station will forward to the DID/DISA Destination assigned under section 3.5.5.7 should this timer expires.	000~255 (seconds)	00
VSF User Maximum Record Timer	This timer sets the maximum duration allowed for the User Greeting in the system's VSF.	000~999 (seconds)	60
VSF Valid User Message Timer	This timer sets the minimum duration allowed for a voice mail message in the system's VSF. Messages shorter than this duration are not stored.	0~9 (seconds)	4
Door Open Timer	This timer sets the minimum time required to activate the contact assigned as a door open contact.	05~99 (100 msec.)	20
ICM Dial Tone Timer	If a user goes off-hook on the Intercom and takes no action for this timer, the user will receive error tone.	01~20 (seconds)	10
Inter Digit Timer	This timer sets the maximum time allowed between each user-dialed digit. At expiration, the user will receive error-tone.	01~20 (seconds)	05
MSG Wait Reminder Tone Timer	An iPECS Phone user will receive periodic reminder tones of a message waiting at intervals of this timer.	00~60 (minutes)	00
Paging Timeout Timer	Determines the maximum duration of a page after which the caller and Page Zone are released.	000~255 (seconds)	15
Pause Timer	A Timed pause of this duration is used in speed dial and during other automatically dialed digits sent to the PSTN.	1~9 (seconds)	3
Soft auto RLS Timer	When a Soft Key is used on the 6000 or 7000 series iPECS Phone, after expiration of this timer, the display will return to the previous display.	1-30	10
VM Pause Timer	When the system sends a "Pause" to Voice Mail using In-band signals, this timer defines the Pause duration. Not available in the USA.	1-90	30
SLT Hook Switch Bounce Timer	This timer determines the duration the system considers an actual state change in the hook-switch and not a spurious contact bounce.	01~25 (100 msec.)	01
SLT Maximum Hook Switch Flash Timer	This timer sets the maximum time an SLT user can depress the hook-switch for a Flash signal.	01~25 (100 msec.)	10
SLT Minimum Hook Flash Timer	This time sets the minimum time an SLT user must depress the hook-switch for a Flash signal.	000~250 (10 msec.)	030
Station Auto Release Timer	For an internal call, the system will return a station to idle if the call remains unanswered for this duration.	000~300 (seconds)	060
Unsupervised Conference Timer	This timer determines the duration of an "unsupervised conference" before the station is recalled or the conference is dropped.	00~99 (minutes)	10
Prime Line Delay Timer	This timer sets the delay (no action duration) for delayed Prime Line operation.	01~20 (seconds)	05
Wink Signal Timer	This timer sets the duration of the "Seize Acknowledge Signal" (Wink) sent to the PSTN on a DID line.	010~200 (10 msec.)	010
Enblock Inter Digit Timer	When an ISDN Line is assigned to send digits Enblock, CO Attribute section 3.5.4.1, the system will send digits if the user dials "#" or this Enblock inter-digit timer expires.	01~20 (seconds)	5
DTMF Duration Timer	This timer establishes the duration of DTMF tones sent on a CO line.	04~99 (10 msec.)	10

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Flex DID Timer	The system will receive DID digits for this timer. After the timer expires, the system will use the last 2 to 4 digits received as the DID digits.	01~99 (100 msec.)	30
R2 Out Manage Timer	Reserved for future usage for R2 timers.	01~50 (seconds)	14
R2 In Manage Timer	Reserved for future usage for R2 timers.	01~50 (seconds)	14
R2 Disappear Timer	Reserved for future usage for R2 timers.	01~50 (seconds)	14
R2 Pulse Timer	Reserved for future usage for R2 timers.	01~30 (seconds)	07
R2 Ready Timer	Reserved for future usage for R2 timers.	000~500 (msec)	07
Dial Tone Delay Timer	Reserved for future usage for R2 timers.	01~30 (msec)	20

3.5.5.21 In-Room Indication

Re: **PGM CODE** 183

The Supervisor Station can set the In-Room Indication for all members in the same Group up to 10 bins can be programmed, and each bin has (at most) 20 members excluding the Supervisor.

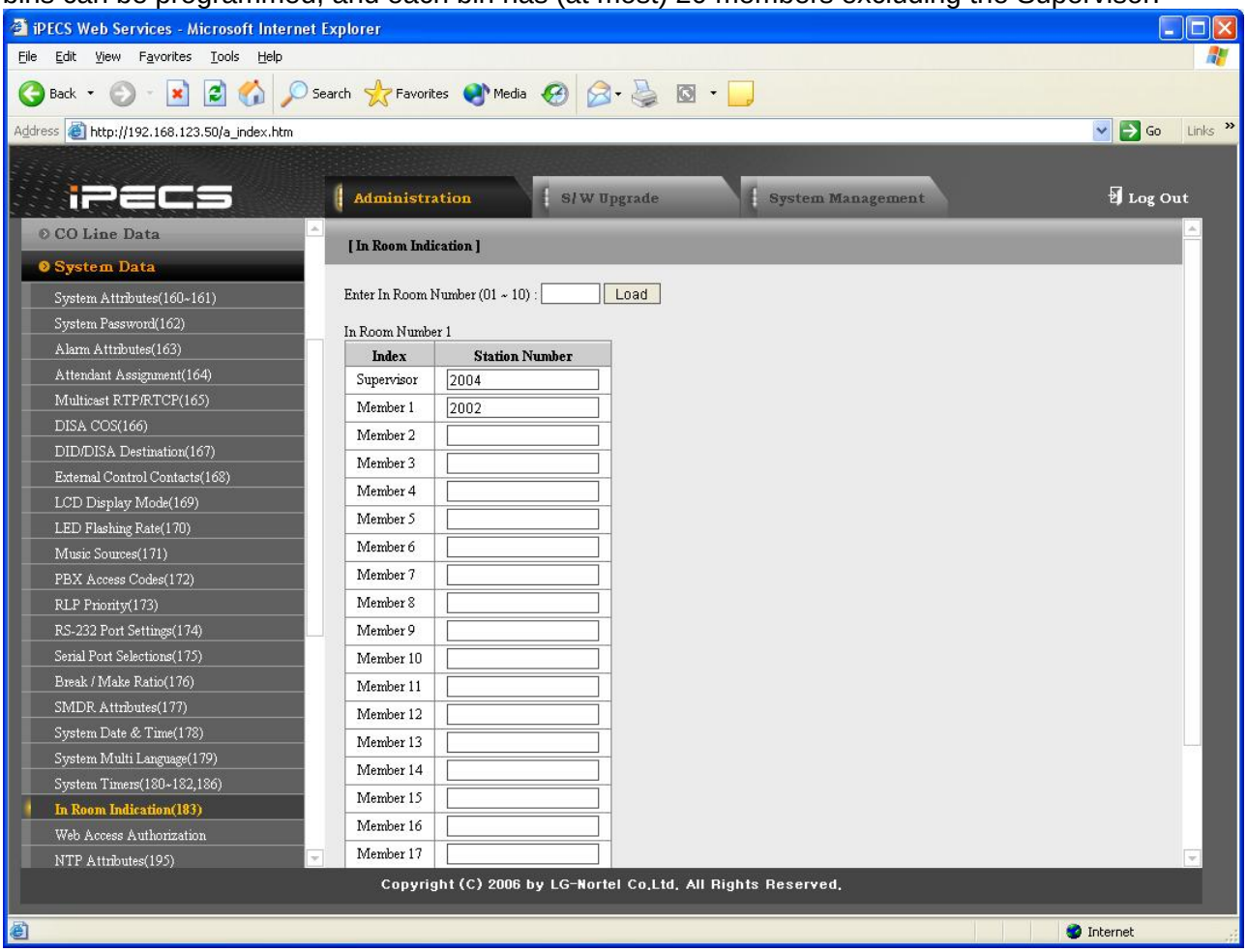


Figure 3.5.5.21-1 In-Room Indication

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Supervisor	Assign number of hot desk agent.		
Member 01~20	This entry assigns stations as members		

3.5.5.22 Web Access Authorization

Selecting Web Access Authorization will display the Web Access Authorization data entry page, Figure 3.5.5.222-1. This page is only displayed when a password is defined.

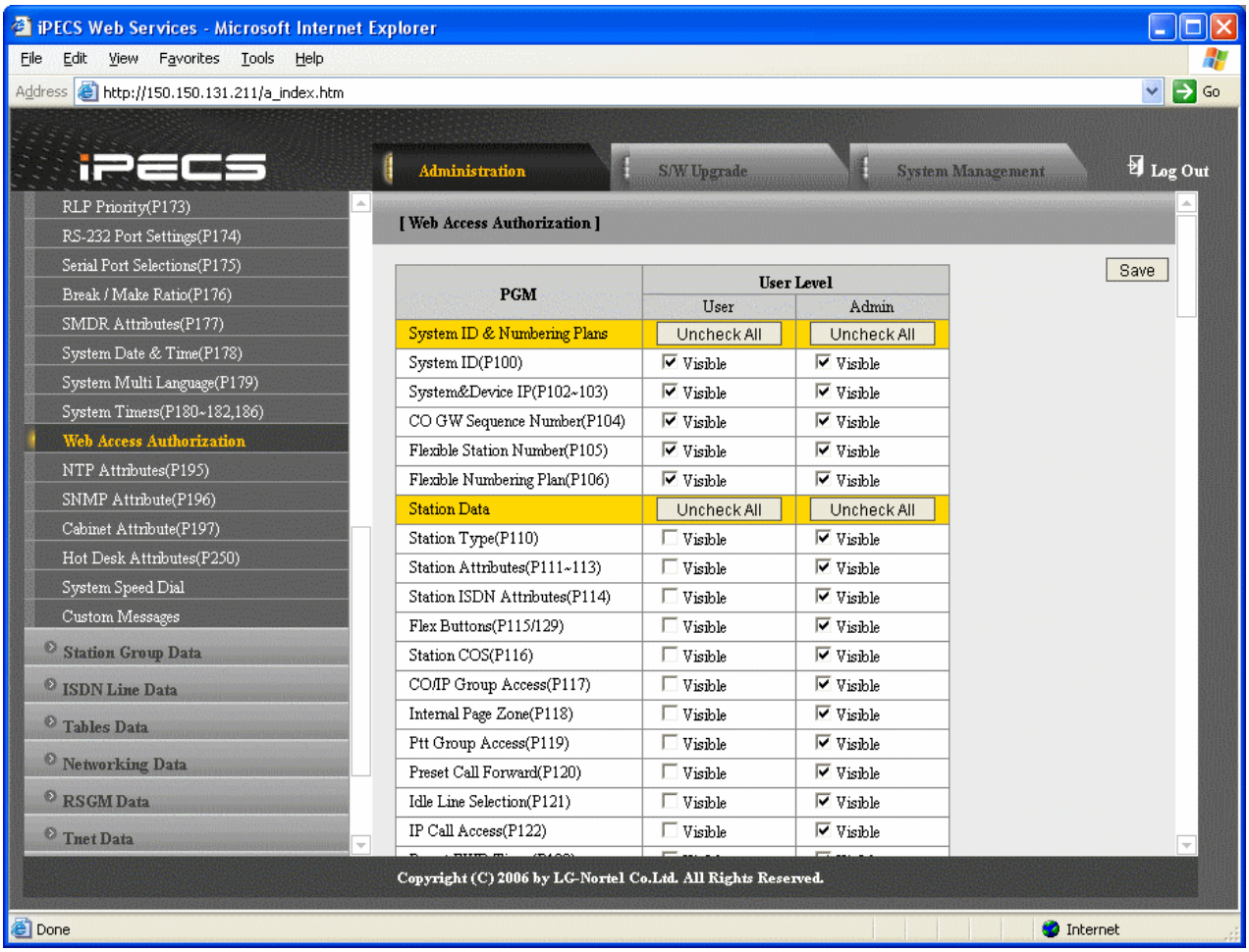


Figure 3.5.5.222-1 Web Access Authorization

Three different passwords can be assigned for the access to the iPECS Web administration so that the different levels of access to the program fields can be allowed.

The User level has access to assigned programming fields and File Upload & remote Upgrade page, which are mainly related to the system installation. The Admin level has access to assigned programming fields.

The Maintenance password has access all the programming fields and the maintenance fields including trace settings, gateway log view, gain & cadence control, lock key install and device delete feature. In addition, the Maintenance level user can assign the authorities of the other user levels.

3.5.5.23 Hot Desk Attributes

Re: **PGM CODE** 250

Selecting Hot Desk Attributes will display the Hot Desk Attributes data entry page, Figure 3.5.5.233-1.

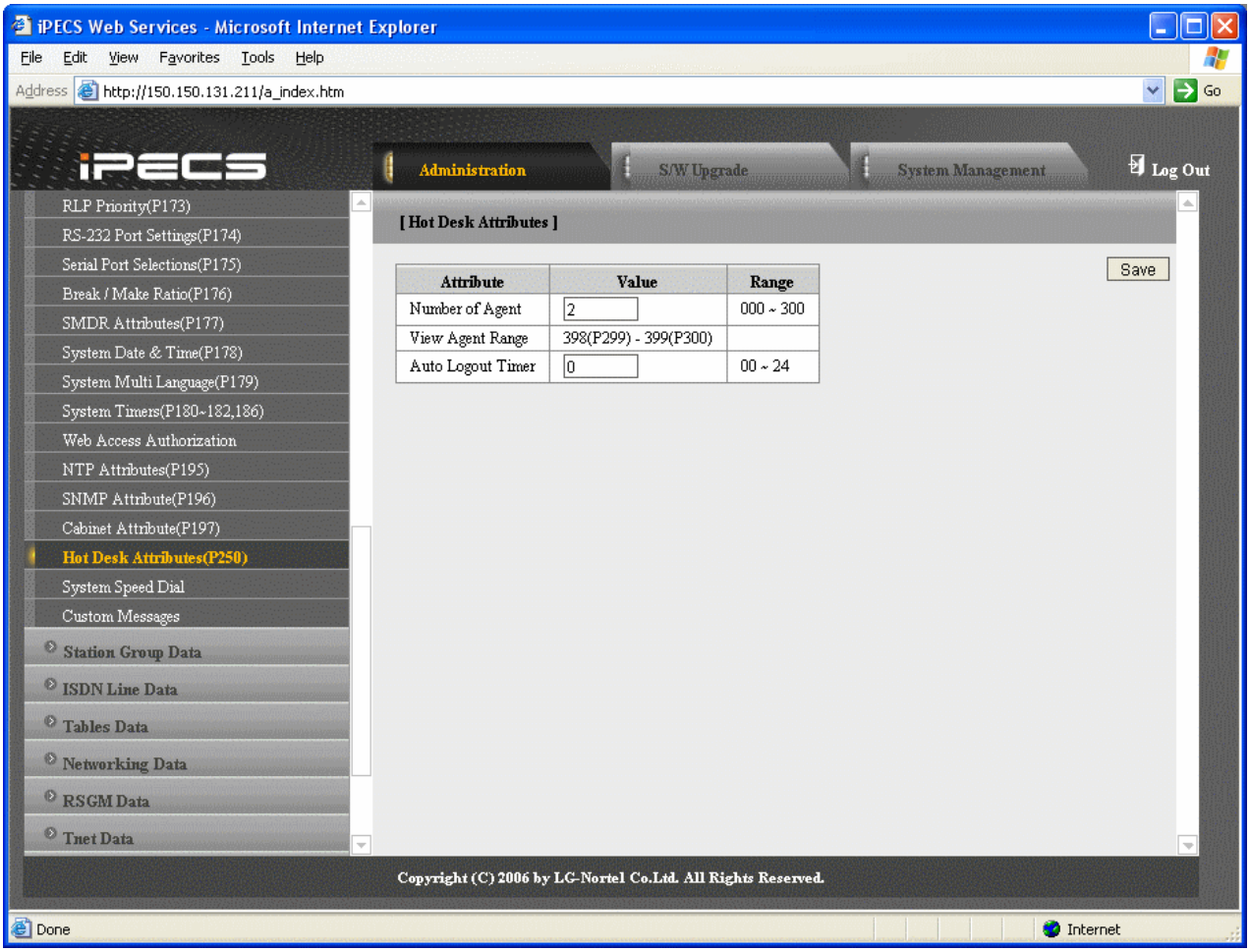


Figure 3.5.5.233-1 Hot Desk Attributes

A Hot Desk station allows a user to login for access to the system features and resources. Once logged in, the user is provided access to system features and resources employing the database for the user's assigned station.

User station numbers are assigned automatically by the system. The system assigns station numbers to each agent starting at the highest station number (126 for iPECS-Micro, 149 for iPECS-50; 169 for MFIM100 and 399 for the MFIM300; 1599 for the MFIM600; 2199 for the MFIM1200) and decrementing, for each agent. For example, if the number of Hot Desk users under button 1 is five, then station numbers 169, 168, 167, 166, and 165 for the MFIM100 are assigned as Hot Desk users.

Table 3.5.5.233-1 HOT DESK ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Number of Agent	Assign number of hot desk agent.	IPECS-Micro 00-26 IPECS-50 000-050 MFIM100 000-070 MFIM300 000-300 MFIM600 000-600 MFIM1200 000-1200	
View Agent Range	View the assigned station numbers for agents		
Auto Logout Timer	A Hot desk station will return to inactive if the logged in user takes no action for the Auto Logout timer.	00~24 Hrs.	00

3.5.5.24 System Speed Dial

Selecting System Speed Dial will display the System Speed Dial entry page, Figure 3.5.5.244-1. Select the Speed Dial range desired, blue text in the table header.

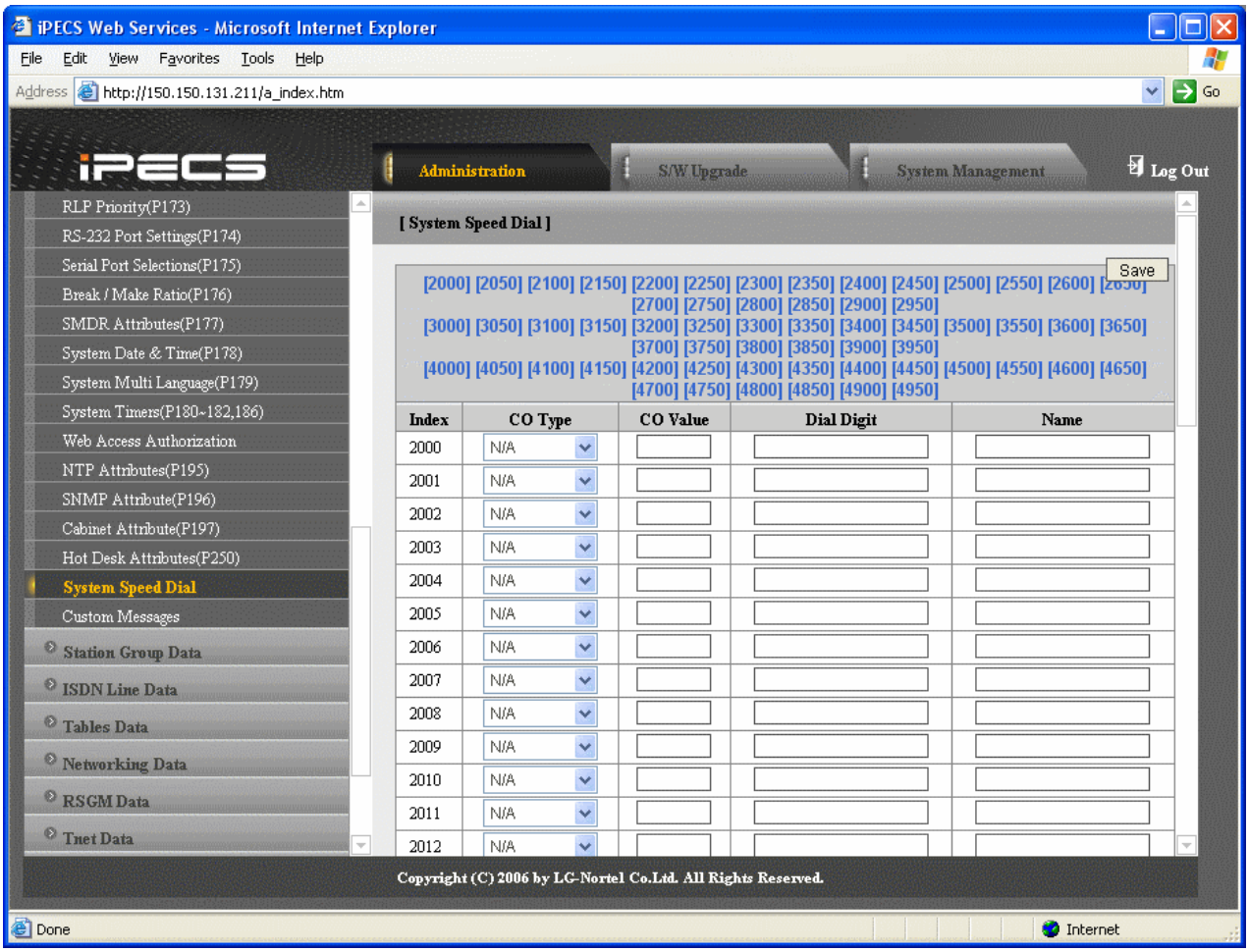


Figure 3.5.5.244-1 System Speed Dial List

Capacity for System Speed dial numbers is provided in Table 1.1-1 for the various system configurations.

3.5.5.25 Custom Messages

Selecting Custom Messages will display the Custom Message Table data entry page, Figure 3.5.5.255-1.

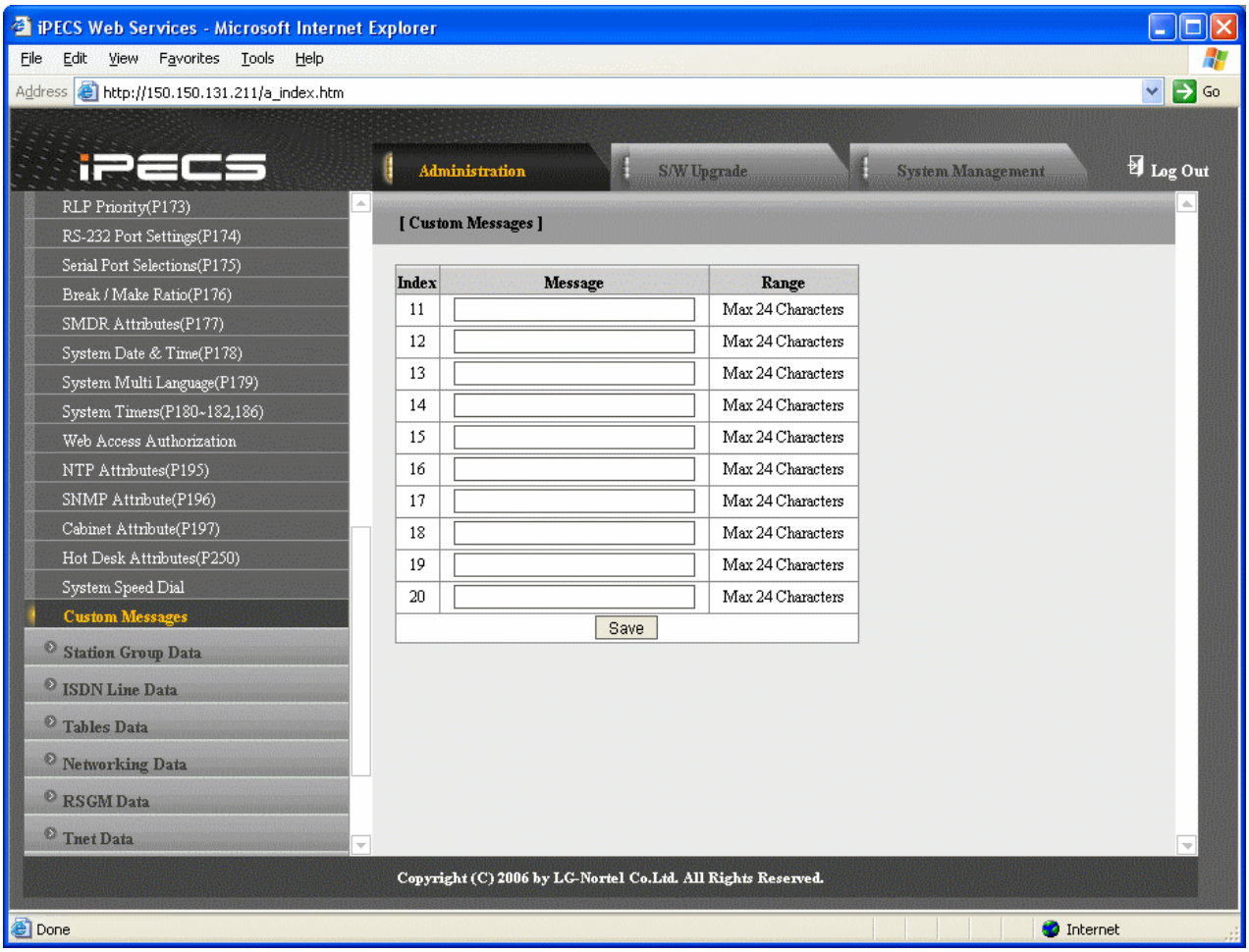


Figure 3.5.5.255-1 Custom Message

3.5.5.26 NTP Attributes

Re: **PGM CODE** 195

Selecting NTP Attributes will display the System NTP Attributes entry page, Figure 3.5.5.266-1.

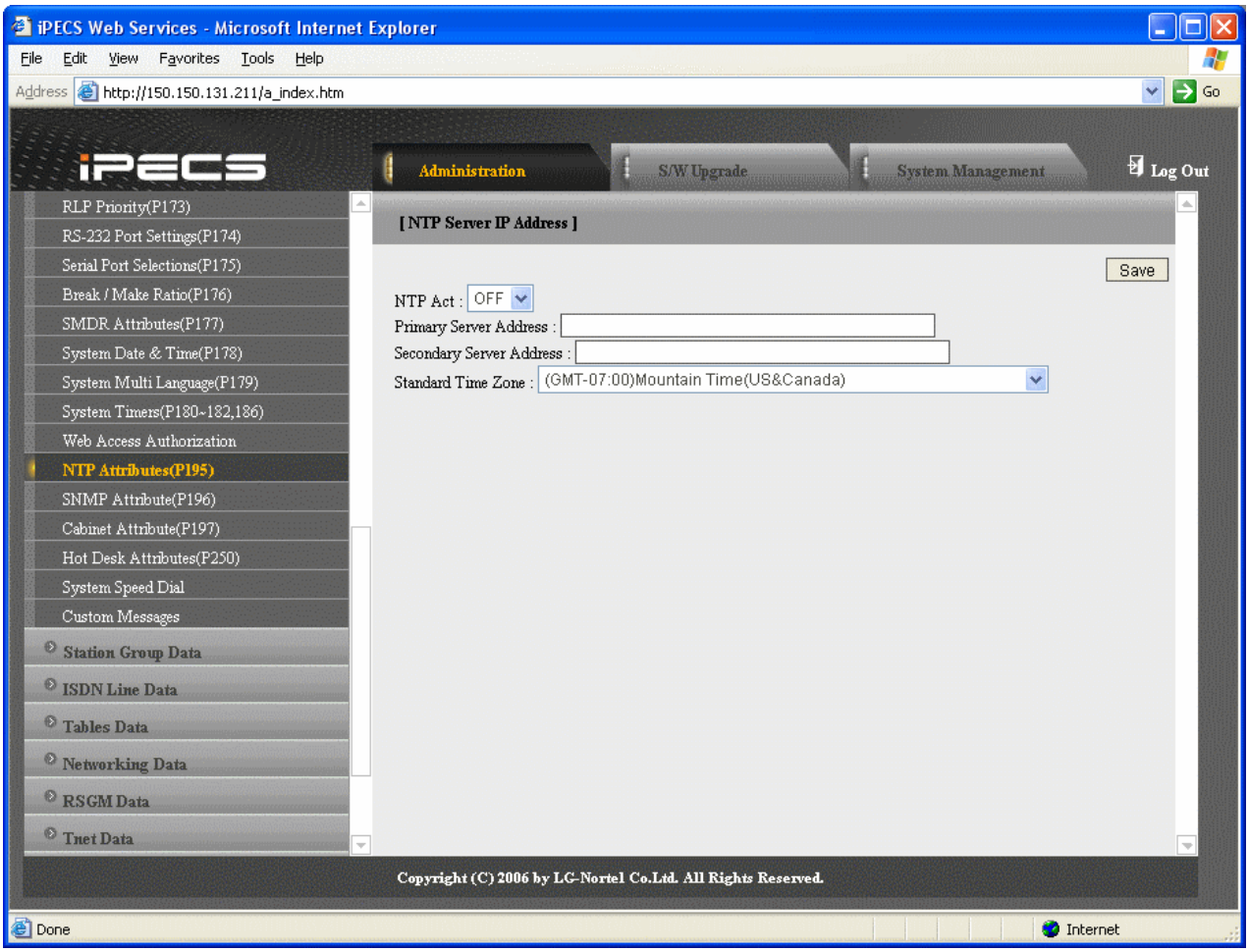


Figure 3.5.5.266-1 NTP Attributes

The system can employ the Network Time Protocol (NTP) to synchronize the system time with an NTP time server. The system requests the time from the NTP server at 10-minute intervals and then determines the time differential. If the system time is more 2 seconds, off the NTP time, the system time is adjusted to synchronize with the NTP server time.

3.5.5.27 SNMP Attribute

Selecting SNMP Attribute will display the SNMP Attributes entry page, Figure 3.5.5.277-1.

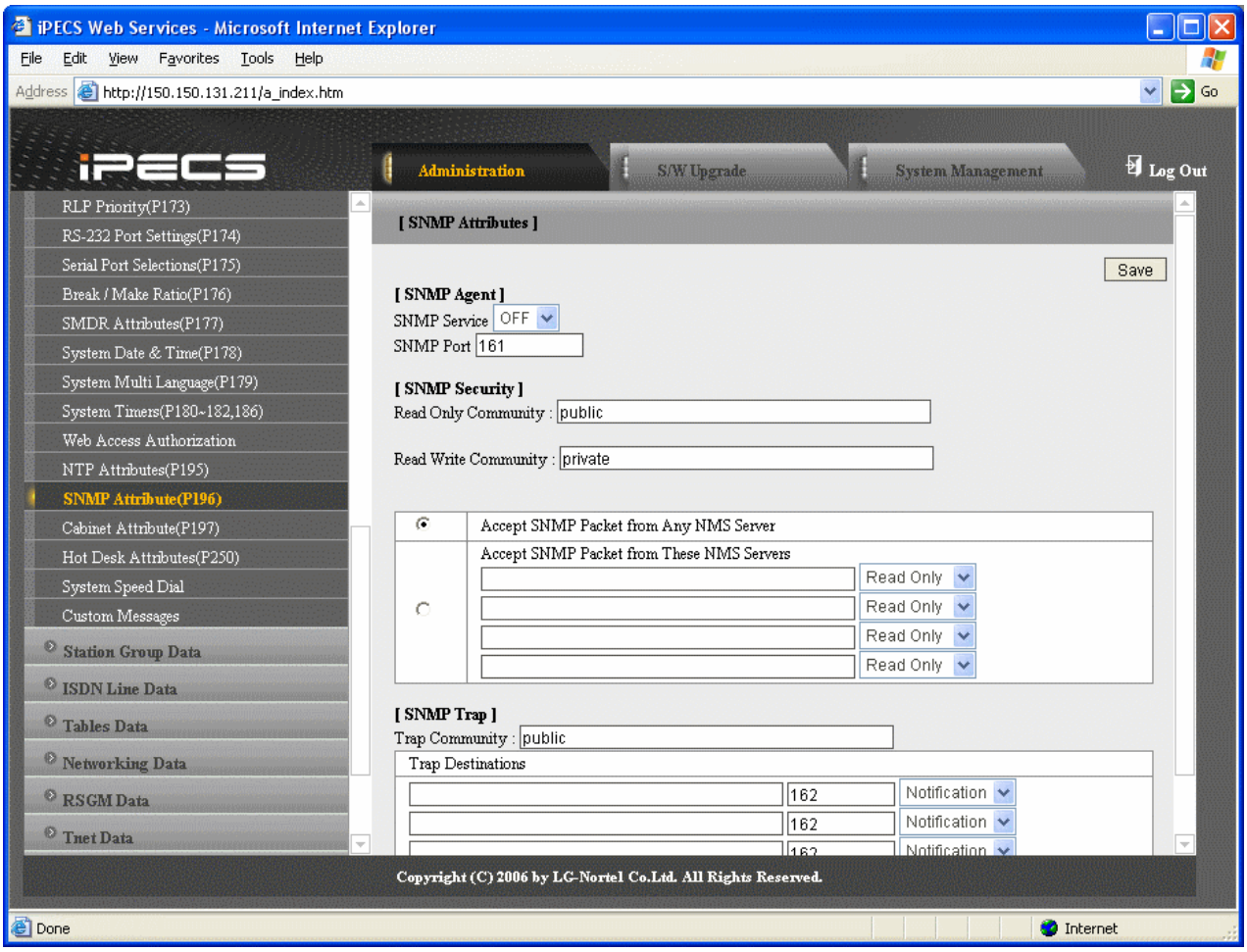


Figure 3.5.5.277-1 SNMP Attribute

SNMP Attributes, as shown on the screen, are divided into three categories: SNMP Agent, SNMP Security, and SNMP Trap. The SNMP Service field enables the SNMP agent running in the iPECS call server. The SNMP port field defines the udp port used for communications from the iPECS system for SNMP messages. This port should not be changed.

In SNMP Security are the Read Only and Read Write SNMP Community fields, 4 to 16 characters. The SNMP community designates an SNMP communication group to which an SNMP message belongs, and is a logical relationship between the SNMP agent (iPECS system) and SNMP manager (iPECS NMS). The SNMP community settings must be the same for the iPECS system and the iPECS NMS server.

- Read Only Community (default=Public)—Defines a community string used when the iPECS NMS reads data from the iPECS system.
- Read Write Community (default=Private)—Defines the community string used when iPECS NMS reads or writes data to the iPECS system.

Although the iPECS system can accept packets from any SNMP manger (iPECS NMS), for improved security, the IP address of specific servers can be defined and allowed Read only or Read Write access. It is recommended that the system be assigned with the IP address of a specific NMS server with Read Write access.

The SNMP Trap configuration defines the Trap Community, and the Trap Destination, which includes the IP Address of the SNMP manager, iPECS NMS, and the .message type. The Trap Community designates a communication group to which a Trap message belongs, and is a logical relationship between the SNMP agent (iPECS system) and SNMP manager (iPECS NMS). This 4 to 16 character string should be the same as the Trap community string defined in the iPECS NMS. The Trap community should be same for all the iPECS systems registered to an iPECS NMS server whereas the SNMP community may be defined with different strings for each iPECS system.

The Trap Destination defines the IP address of the iPECS NMS server and the port, 162. Enter the IP address of the NMS server but, the port should not be changed. The pull down menu next to the address is used to define the message type. Three values are available:

- Trap – message type is defined in SNMPv1, but because iPECS-NMS and the iPECS system use SNMPV2, the Trap type message is not recommended
- Notification – message type sent from the SNMP agent once without checking the reception of the message.
- Inform – message type requires a response of receipt from the SNMP manager. If the agent does not receive a response, the message is resent. Inform messages are intended for use in environments with high packet loss, however, use of the Inform message type may detrimentally affect the iPECS system performance.

The iPECS SNMP attributes are defined here. Refer to Table 3.5.5.277-1 for description and values that can be entered.

Table 3.5.5.277-1 SNMP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
SNMP service	SNMP Service' field is used to set the SNMP agent in the iPECS On or Off.	ON/OFF	
SNMP Port	SNMP Protocol port number.		161
Read Only Community	Read only community should be used when SNMP manager (NMS) is trying to read data from SNMP agent (MFIM)	4 ` 16 characters	
Read Write Community	When the SNMP manager (NMS) needs to both read and write data to the agent (iPECS) this attribute should be enabled.	4 ` 16 characters	
Trap Community	For the SNMP agent (iPECS), this field defines the destination IP address to receive trapped messages (Alarm/fault events).	4 ` 16 characters	
Trap Destination	IP address of iPECS NMS server, port 162 should not be changed	IP address	
Message Type	Defines how the agent sends the message	Notify Inform Trap	Notify

3.5.5.28 Cabinet Attributes

Selecting Cabinet Attributes will display the Cabinet Attribute entry page, Figure 3.5.5.288-1.

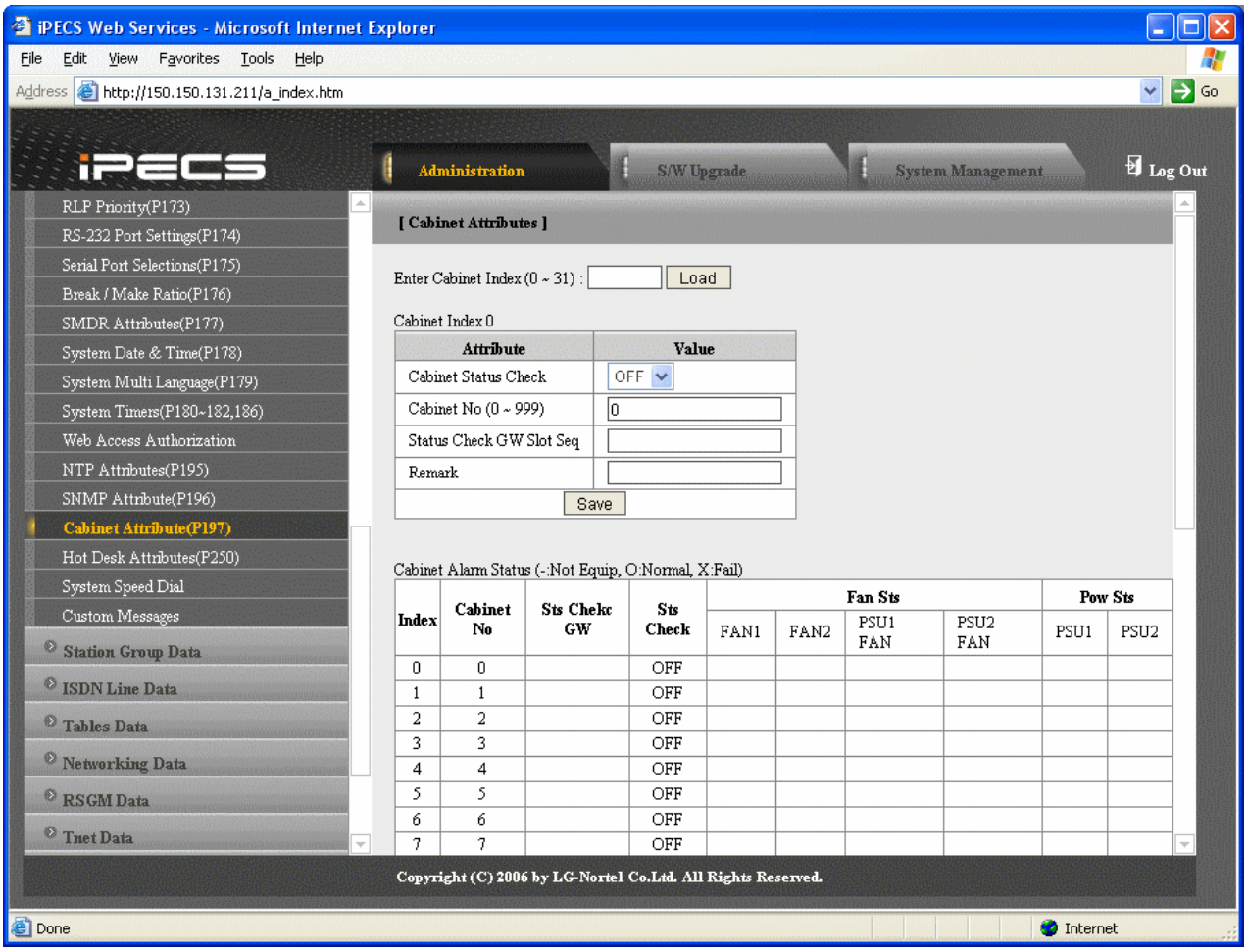


Figure 3.5.5.288-1 Cabinet Attributes

This Web page displays system cabinet configurations and alarm status.

3.5.5.29 System Call Routing

Selecting System Call Routing(251) will display the System Call Routing table page, Figure 3.5.5.288-1.

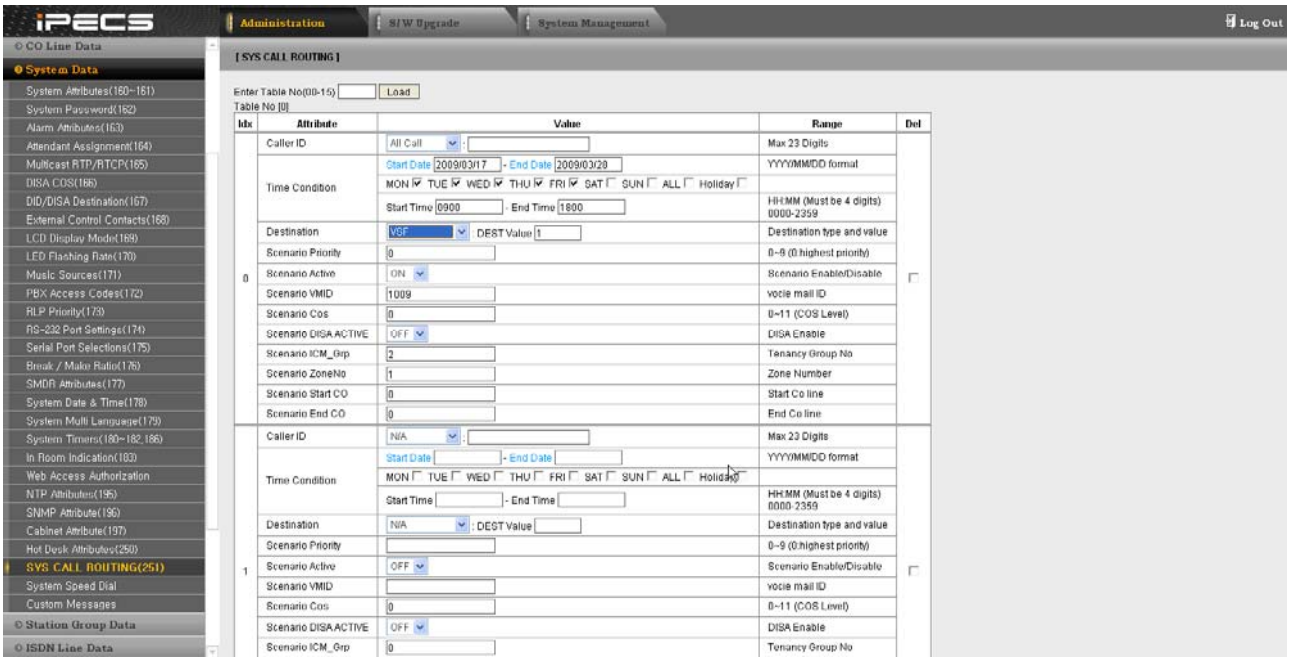
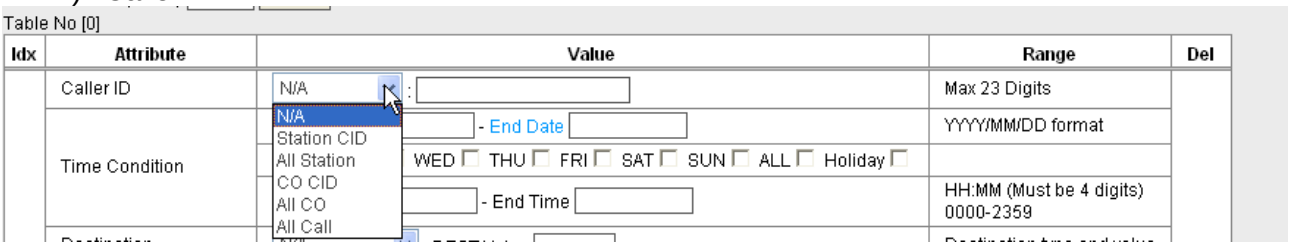


Figure 3.5.5.299-1 System Call Routing

This Web page displays system call routing configurations and del.

Condition :

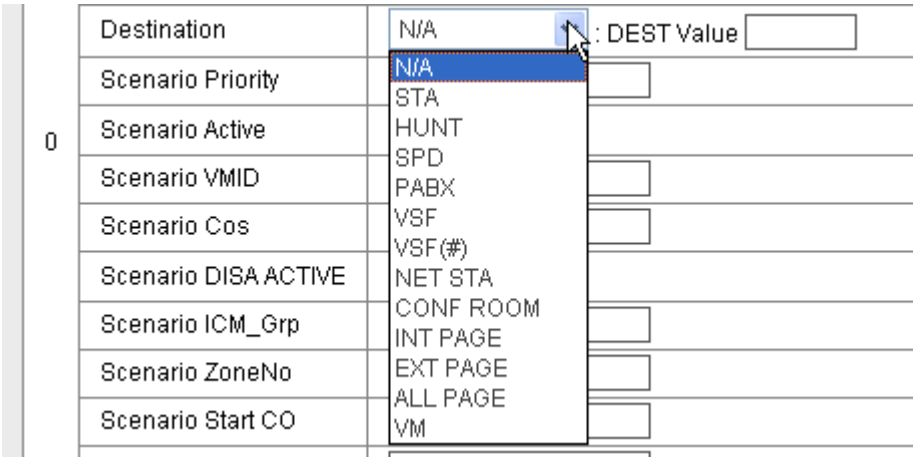
1) Caller ID



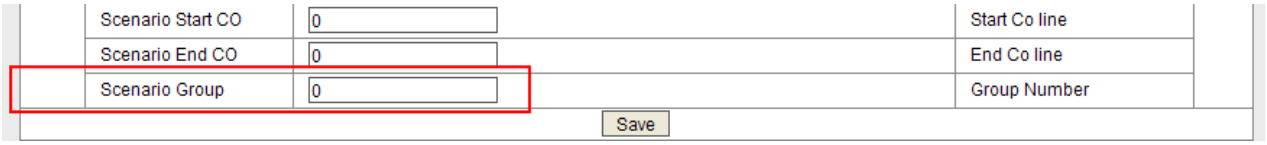
2) Time
3) ICM_Grp(Tenancy group)
4) Zone
5) CO range

Destination :

1) Destination



2) Scinario VMID : is used when Destination is VM and Dest Value is VM group.
3) Scinario COS



4) If you set Scenario Mode manually in attendant, you set scenario group.

3.5.6 Station Group Data

Selecting the Station Group Data program group returns the sub-menu displayed in Figure 3.5.6-1.

Figure 3.5.6-1 Station Group Data Menu

Stations can be grouped so that incoming calls will search (hunt) for an idle station in the group. The system allows assignment of three hunt processes, Circular, Terminal and UCD. In addition, there are eight (8) functional groups available: ACD (Automatic Call Distribution) based on UCD hunt, Ring, Call Pick-Up, External Voice Mail (SLT connected), VSF-Voice Mail, iPECS Feature Server Voice Mail and Network Voice Mail and UCS Groups.

The Station Group capacities for the iPECS systems are shown in below table.

ITEM	CAPACITY			
	iPECS-Micro	iPECS-50	MFIM100	Other MFIMs
Number of Groups	12	40	40	48
Stations in a Group	26	50	70	70

Certain types of groups can incorporate announcements, which are given to the calling party. The system's VSF can store up to seventy (70) announcements for use with Station Groups.

Note that a station can belong to multiple groups if the groups are all of the same type. Also note that when a station group is assigned to a group type (Circular, Terminal, ACD, VM, FS VM, VSF-VM, Net VM, UCS and Ring), the group attributes are initialized to the default values.

3.5.6.1 Station Group Overview

Selecting the Station Group Overview item will return the Station Group Overview page, Figure 3.5.6.1-1. This page displays the Station Group attributes (type, pick-up attribute and member stations) for all the Station Groups. Note that data cannot be entered on this page. Selecting the blue colored text in the Table header will sort the table based on the selected column.

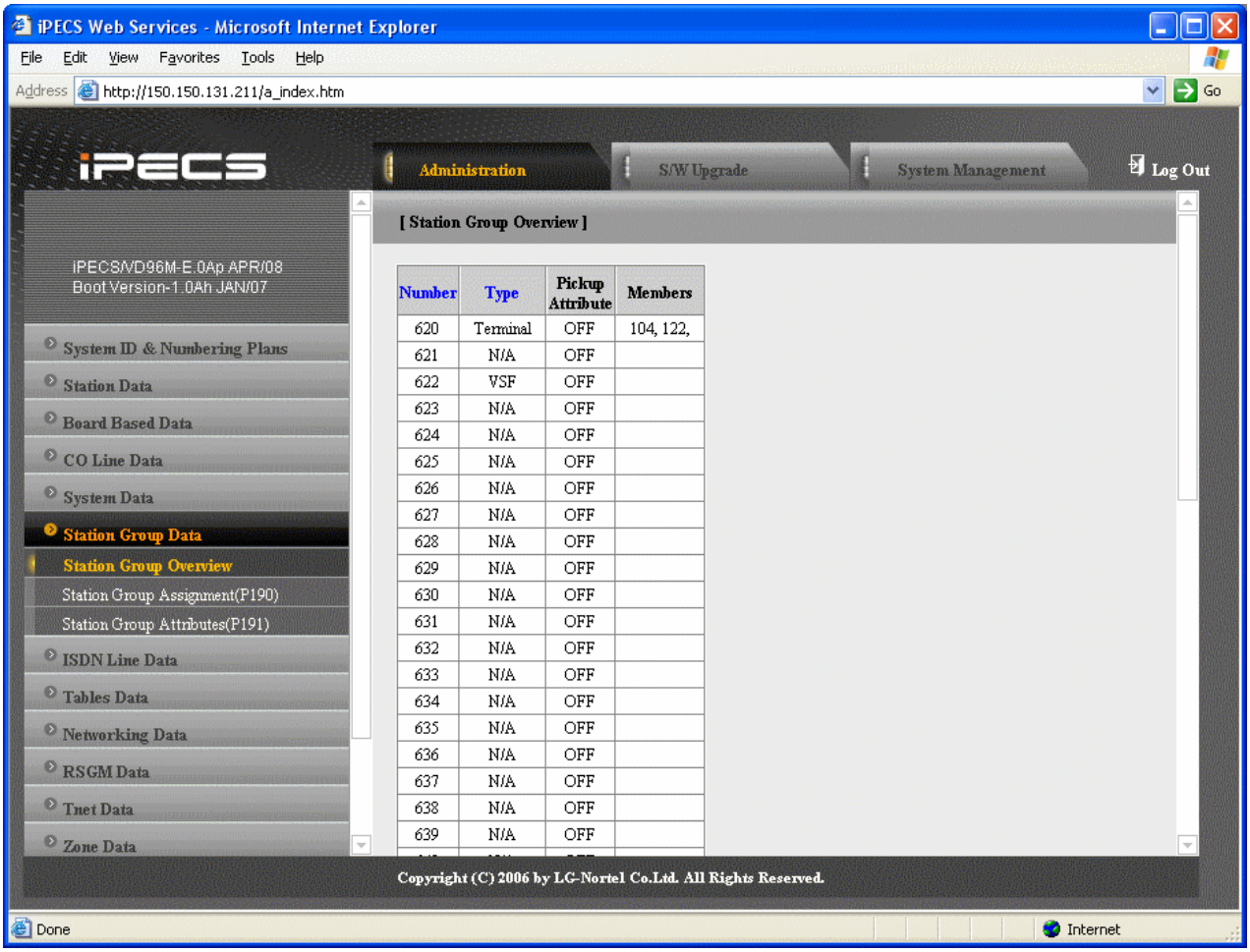


Figure 3.5.6.1-1 Station Group Overview

3.5.6.2 Station Group Assignment

Re: **PGM CODE** 190

Selecting Station Group Assignment will display the Station Group data entry page, Figure 3.5.6.2-1. Enter the desired Station Group number and click Load to display the Group Assignment.

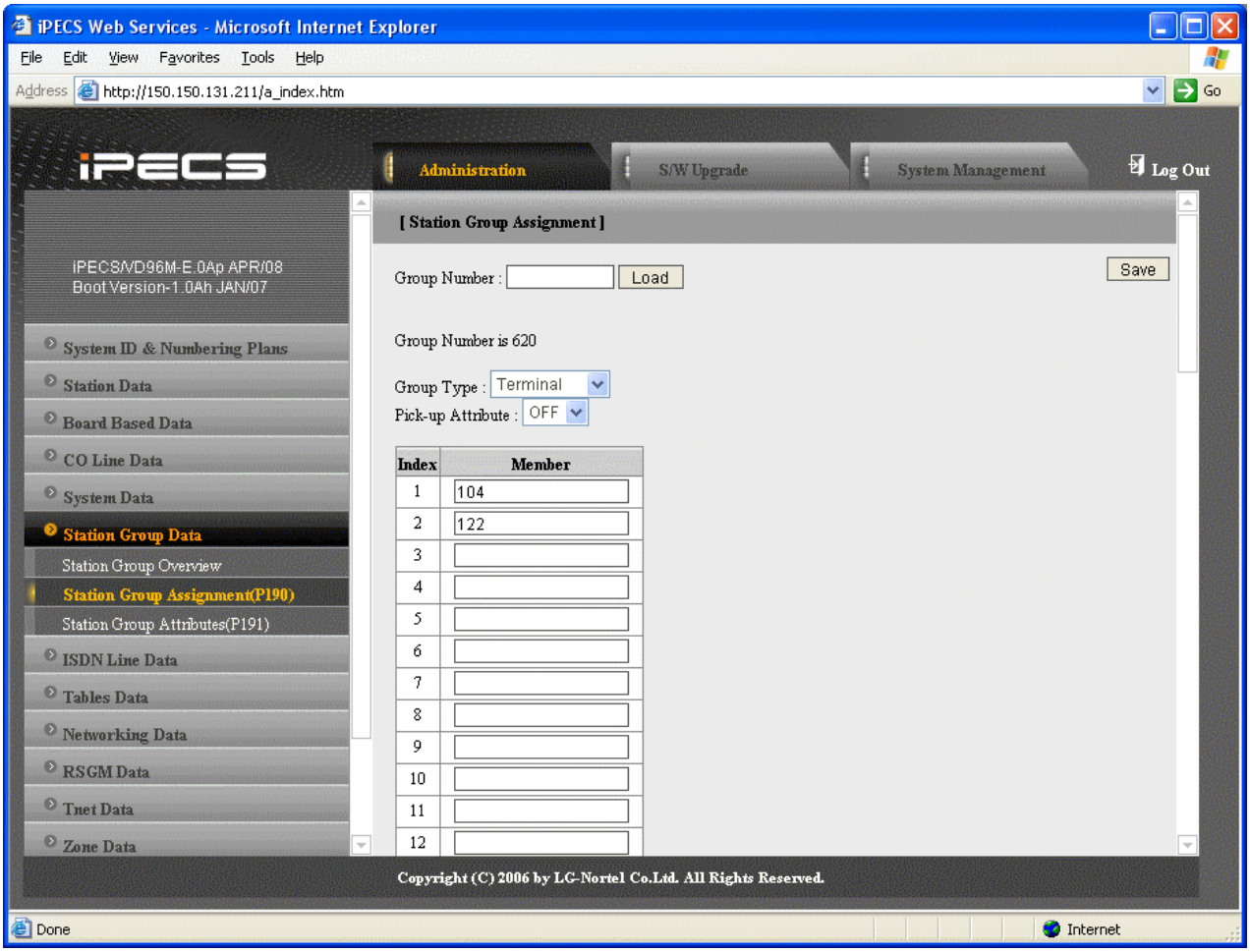


Figure 3.5.6.2-1 Station Group Assignments

Under Station Group Assignments the type, members and Pick-Up attribute are assigned to the Station Group. Note for the Net VM group, the network number must be assigned as the Net VM group member station.

Table 3.5.6.2-1 STATION GROUP ASSIGNMENT

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Group Type	Defines the type of station group.	N/A Circular Terminal ACD Ring External VM Pick-Up VSF-VM FS VM NET VM UCS	N/A
Pick-up Attribute	Stations can pick-up group calls ringing at other stations in the group. This does not apply to VSF or FS VM groups.	OFF ON	OFF
Member	Assigns stations as members of a station group or, for the Net VM group type, defines the Net Number of the group.		-

3.5.6.3 Station Group Attributes

Re: **PGM CODE** 191

Selecting Station Group Attributes will display the Station Group Attributes data entry page. Enter the Station Group number and click Load, the Web page for the selected group will be displayed as in Figure 3.5.6.3-1 to Figure 3.5.6.3-8 based on the Group type.

Each type of group has a different set of available attributes relating to announcements, timers, overflow, etc. Table 3.5.6.3-1 through Table 3.5.6.3-8 provide descriptions for the attributes and data entries required. Note that the attributes for the Circular and Terminal Hunt groups are given in Table 3.5.6.3-1 and the UCD attributes include the ACD functions Table 3.5.6.3-2.

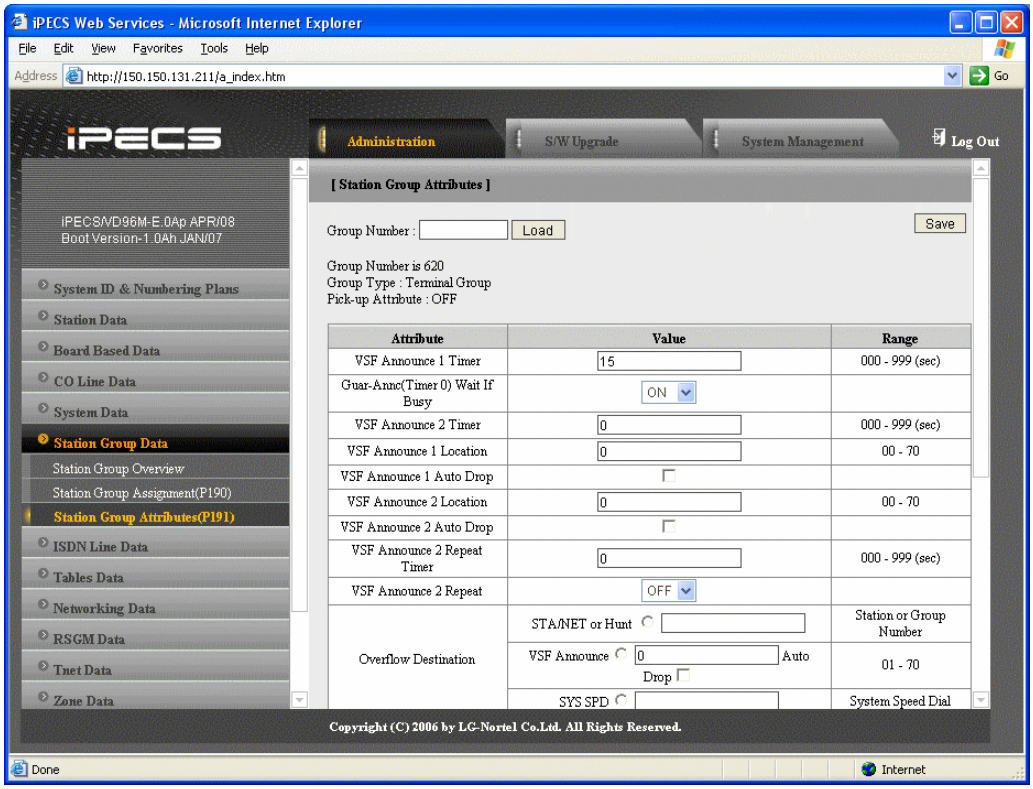


Figure 3.5.6.3-1 Terminal & Circular Group Attributes

Table 3.5.6.3-1 TERMINAL & CIRCULAR GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 1 Timer	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds the VSF Announce 1 timer, the call is sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Guar-Annc(Timer 0) Wait If Busy	When a call assigned to receive a guaranteed announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement (OFF).	OFF ON	ON
VSF Announce 2 Timer	After the 1st announcement, the 2nd ANNC TMR is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
VSF Announce 1 Location	The Station Group can be assigned an announcement, which is played if the call remains queued beyond the VSF Announce 1 Timer duration. The announcement location is the VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 1 Auto Drop	If this attribute is selected, the call will drop after the 1st VSF announcement	Check box	
VSF Announce 2 Location	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the VSF Announce 2 Timer duration. The announcement location is the VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 2 Auto Drop	If this attribute is selected, the call will drop after the 2nd VSF announcement	Check box	
VSF Announce 2 Repeat Timer	The 2nd announcement can be repeated to callers that remain in queue at intervals of the announcement 2 repeat timer. Note VSF Announce 2 Repeat below must be “ON”.	000~999 (seconds)	000
VSF Announce 2 Repeat	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the Announce 2 Repeat Timer interval, defined above.	ON OFF	OFF
Overflow Destination	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or route to the assigned overflow destination. If VSF Announcement is selected, Auto Drop can be checked.	STA/NET or Hunt Number, VSF Announce, System SPD	
Overflow Timer	A call to the group will remain at the last station in the group or can be sent to the assigned Overflow Destination after expiration of the Overflow Timer.	000~600 (seconds)	180
Warp-Up Timer	After terminating any call, a Group member will be maintained in a busy state for the duration of the Wrap-Up timer.	000~999 (seconds)	002
No Answer Timer	Calls to a station in the group are directed to the station, if unavailable or unanswered in the No Answer Timer, the call can be routed based on the assigned hunt process.	00~99 (seconds)	15
Pilot Hunt	A circular/terminal hunt group can be set so that only calls to the pilot number (station group number) will hunt.	ON OFF	ON
REPT No Member	If a call is received and no members are on-duty, an ICM call will return re-order tone, while a CO/IP call will be routed to the Attendant.	ON OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Music Source	A Music source can be assigned so that calls to the group will receive audio from the assigned source in place of ring-back tone.	none Int/Ext 1 Ext 2 VSF MOH	Int/Ext 1
Allow Forward Member	A member activating Call forward, may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal (OFF).	ON OFF	OFF
VSF Wait Station	When a call overflows or routes to the VM group, a station number is used to identify the Mailbox for the group messages.	Station Number	
Mail Box Password	The password associated with a group Mailbox is defined here. The password is used in conjunction with the group as with a normal station.	Max 12 digits	
Forced Forward Destination	Calls to a hunt group may forward directly to a defined destination, bypassing the hunt process. "Forced Forward", below, must be enabled.	Sta./NET Hunt grp. VSF Annc Sys. Speed	
Forced Forward	Calls to a hunt group may forward directly to a defined destination, see above "Forced Forward Destination". Forced Forward must be enabled for the group.	OFF ON	OFF
Wait if the 1st Announcement is busy	When a call assigned to receive a guaranteed announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement (OFF).	ON OFF	ON

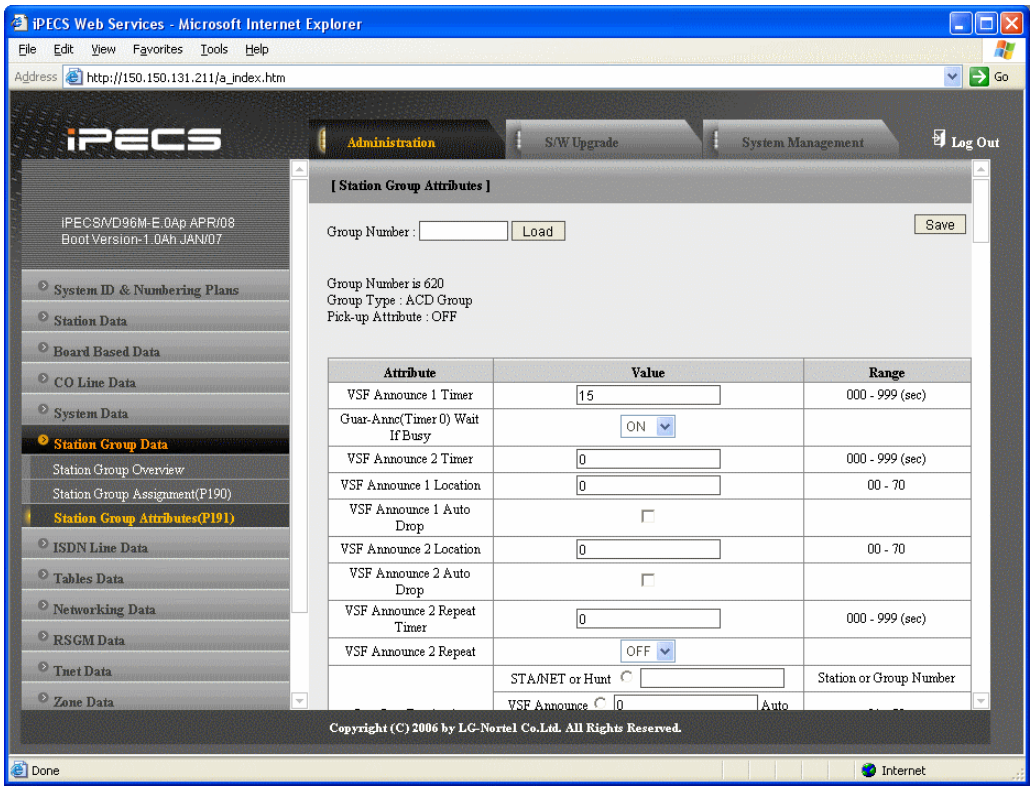


Figure 3.5.6.3-2 ACD Group Attributes

Table 3.5.6.3-2 ACD GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 1 Timer	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds the VSF Announce 1 Timer, the call is sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
Guar-Annc (Timer 0) Wait If Busy	When a call assigned to receive a guaranteed announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement. (OFF)	OFF ON	ON
VSF Announce 2 Timer	After the 1st announcement, a 2nd timer is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
VSF Announce 1 Location	Each Station Hunt Group can be assigned an announcement, which is played if the call remains queued beyond the VSF Announce 1 Timer duration. The announcement location is a VSF announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 1 Auto Drop	If this attribute is selected, the call will drop after the 1st VSF announcement		
VSF Announce 2 Location	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the VSF Announce 2 Timer duration. The announcement location is a VSF announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 2 Auto Drop	If this attribute is selected, the call will drop after the 2nd VSF announcement		
VSF Announce 2 Repeat Timer	The 2nd announcement can be repeated to calls that remain in queue at intervals of the VSF Announce 2 Repeat Timer. Note repeating must be “ON” under VSF Announce 2 Repeat below.	000~999 (seconds)	000
VSF Announce 2 Repeat	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the VSF Announce 2 Repeat Timer interval.	ON OFF	OFF
Overflow Destination	A call to the group will continue to route through the group until answered or all group members have been tried. The call will queue to the group or route to the assigned Overflow Destination. If VSF Announce is assigned, Auto Drop is available.	Station or Group Number, VSF Announce, System SPD	
Overflow Timer	A call to a group will remain queued to the group or be sent to the assigned Overflow Destination after expiration of the Overflow Timer	000~600 (seconds)	180
Warp-Up Timer	After terminating any call, a Hunt Group member will be maintained in a busy state for the duration of the Wrap-Up timer.	000~999 (seconds)	002
ACD No Answer Timer	Calls to an agent in the group are directed to the station, if unanswered in the NO ANSWER TIMER, the call can be routed another agent	000-180	000

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
REPT No Member	If a call is received and no members are on-duty, an ICM call will return re-order tone, while a CO/IP call will be routed to the Attendant.	ON OFF	OFF
Music Source	A Music source can be assigned so that calls to the group will receive audio from the assigned source in place of ring-back tone while in Queue.	none Int/Ext 1 Ext 2 VSF MOH	Int/Ext 1
ACD Warning Tone	An ACD supervisor can monitor agent conversations. A warning tone can be provided to the agent and connected party when the supervisor activates the monitor feature.	ON OFF	OFF
Alternate Destination	When a call comes into the group and there are no group members available, the call will be routed to the assigned Alternate Destination.	STA/NET or Hunt Number, System SPD	....
Supervisor Timer	When calls have been in queue longer than the Supervisor Timer, the ACD supervisor is notified by a display of the longest queue time.	000~999 (seconds)	030
Supervisor Call Count	When the number of calls in queue exceeds the Supervisor Call Count, the ACD Supervisor is notified by a display of queued calls.	00~99	00
Wait if the 1st Announcement is busy	When a call assigned to receive an announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement (OFF).	0: OFF 1: ON	ON
Maximum Queued Call Counter	When the number of calls queued to the group match this parameter, new calls will receive error tone and be disconnected after the VSF Announcement 1, if assigned, is played.	00-99	99
Supervisor 1 to 5	Any valid iPECS Phone with display can be assigned as a Supervisor, max. 5 ACD Supervisors.	Station	
UCD DND Wrap Timer	ACD agents are placed in the Wrap-up mode for the Wrap-up timer duration	002~200 sec	010
Entered Caller ID ICLID Usage	Within 5 seconds of a guaranteed announcement, the caller may dial digits as an ICLID. The user-dialed digits are compared to the ICLID Table entries, for routing or, for a single dialed digit, to the ACD CCR table below.	ON OFF	ON
Forward Member Calls	A member activating Call Forward, may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal.	OFF : no FWD ON : FWD	ON
Group Name	An ACD group name can be designated	12 character	
CCR digit 1	When an ACD call is queued, the caller may be allowed to dial a digit to exit the queue and route to another destination. The alternate destination is based on the user-dialed digit and can be a station, hunt, system-speed bin, or network station. Dial the digit below for the type of destination and the value associated with the destination. 1: Enter a station number. 2: Enter a hunt group number. 3: Enter a system speed bin. 4: Enter a network station number		
CCR digit 2			
CCR digit 3			
CCR digit 4			
CCR digit 5			
CCR digit 6			
CCR digit 7			
CCR digit 8			
CCR digit 9			
CCR digit 10			
ZAP Tone	Agents using a headset can have ACD calls connected to them automatically preceded by a tone (Zap tone).	ON OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CIQ Ment Play On/OFF	If enabled, queued callers receive the CIQ message (You are # in queue) after the 1st and 2nd announcement.	ON OFF	OFF
VSF Wait Station	When an ACD call overflows or routes to the VM group, a station number is used to identify the Mailbox for the ACD group messages.	Station	
Mail Box Password	The password associated with an ACD group Mailbox is defined here. The password is used in conjunction with the ACD group Mailbox as with a normal station.	12 digits	
CIQ Display To Agent - Mode	When an ACD call is in queue, the Call in queue information is displayed in the LCD of agent and supervisor phones.	ON OFF	OFF
CIQ Display To Agent - Timer	If CIQ information is displayed, the information is updated at intervals based on this timer.	008-300	030
CIQ #1 Page Alert - Threshold	If the queued call count exceeds the threshold, the system plays the CIQ #1 Announcement to the CIQ #1 Page Zone after the CIQ #1 Announcement Delay Timer. Announcements are repeated at intervals of the CIQ #1 Announcement Repeat Timer.	00-99	10
CIQ #1 Page Alert - Message Number	VSF announcement number for the CIQ #1 Announcement.	00-70	
CIQ #1 Page Alert - Page Zone	Page Zone to receive CIQ #1 Announcement.	00~15 or 00-40	00
CIQ #1 Page Alert - Delay Time	Delay timer for CIQ #1 Announcement.	000-180	015
CIQ #1 Page Alert - Repeat Time	Interval for repeating the CIQ #1 Announcement.	000-180	045
CIQ #2 Page Alert - Threshold	If queued call count exceeds the threshold, the system plays the CIQ #2 Announcement to the CIQ #2 Page Zone after the CIQ #2 Announcement Delay Timer. Announcements are repeated at intervals of the CIQ #2 Announcement Repeat Timer.	00-99	20
CIQ #2 Page Alert - Message Number	VSF announcement number for the CIQ #2 Announcement.	00-70	
CIQ #2 Page Alert - Page Zone	Page Zone to receive CIQ #2 Announcement.	00~15 or 00-40	00
CIQ #2 Page Alert - Delay Time	Delay timer for CIQ #2 Announcement.	000-180	015
CIQ #2 Page Alert - Repeat Time	Interval for repeating the CIQ #2 Announcement.	000-180	025
CIQ #3 Page Alert - Threshold	If the queued call count exceeds the threshold, the system plays the CIQ #3 Announcement to the CIQ #3 Page Zone after the CIQ #3 Announcement Delay Timer. Announcements are repeated at intervals of the CIQ #3 Announcement Repeat Timer.	00-99	30
CIQ #3 Page Alert - Message Number	VSF announcement number for the CIQ #3 Announcement.	00-70	
CIQ #3 Page Alert - Page Zone	Page Zone to receive the CIQ #3 Announcement.	00~15 or 00-40	00
CIQ #3 Page Alert - Delay Time	Delay timer for the CIQ #3 Announcement.	000-180	015
CIQ #3 Page Alert - Repeat Time	Interval for repeating the CIQ #3 Announcement.	000-180	005

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
ACD Agent Priority	ACD Group members may be assigned a priority, 0-9. Members with the highest priority are sent calls ahead of lower priority members.	0~9	0
Forced Forward Destination	Calls to a hunt group may forward directly to a defined destination, bypassing the hunt process. "Forced Forward", below, must be enabled.	Sta./NET Hunt grp. VSF Annc Sys. Speed	
Forced Forward	Calls to a hunt group may forward directly to a defined destination, see above "Forced Forward Destination". Forced Forward must be enabled for the group.	OFF ON	OFF

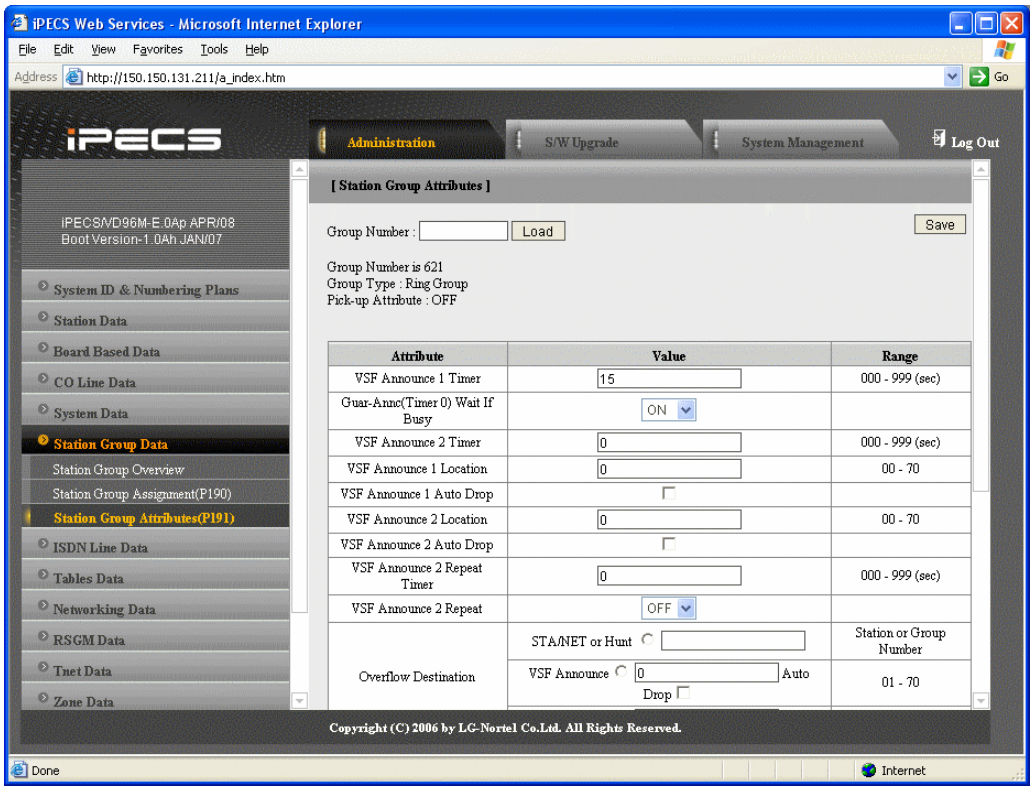


Figure 3.5.6.3-3 Ring Group Attributes

Table 3.5.6.3-3 RING GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 1 Timer	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available station. If the queue period exceeds the VSF Announce 1 Timer, the call is sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
Guar-Annc(Timer 0) Wait If Busy	When a call assigned to receive a guaranteed announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement. (OFF)	OFF ON	ON

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 2 Timer	After the 1st announcement, a 2nd announcement Timer is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned 2nd VSF announcement.	000~999 (seconds)	000
VSF Announce 1 Location	Each Ring Group can be assigned an announcement, which is played if the call remains queued beyond the VSF Announce 1 Timer duration. The announcement location is a VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 1 Auto Drop	If this attribute is selected, the call will drop after the 1st VSF announcement	Check box	
VSF Announce 2 Location	The Ring Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the VSF Announce 2 Timer duration. The announcement location is a VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF announce Auto Drop	If this attribute is selected, the call will drop after the 2nd VSF announcement	Check box	
VSF Announce 2 Repeat Timer	The 2nd announcement can be repeated to calls that remain in queue at intervals of the VSF Announce 2 Repeat Timer. Note VSF Announce 2 Repeat below must be “ON”.	000~999 (seconds)	000
VSF Announce 2 Repeat	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the VSF Announce 2 Repeat Timer interval, defined above.	ON OFF	OFF
Overflow Destination	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or routes to the assigned Overflow Destination. If VSF Announce is assigned, Auto Drop is available.	Station or Group Number, VSF Announce, System SPD	
Overflow Timer	A call to a group will remain at the last station in the group or route to the assigned Overflow Destination after expiration of the Overflow Timer.	000~600 (seconds)	180
Warp-Up Timer	After terminating any call, a Hunt Group member will be maintained in a busy state for the duration of the Wrap-Up Timer.	002~999 (seconds)	002
Music Source	A Music source can be assigned so that calls to the group will receive audio from the assigned source in place of ring-back tone.	none Int /Ext 1 Ext Music 2 VSF MOH	Int/Ext 1
Maximum Queued Call Counter	When the number of calls queued to the group match this parameter, new calls will receive error tone and be disconnected after the VSF AA announcement, if assigned, is played.	00-99	99
Allow Forward Member	A member activating Call Forward, may be placed in an unavailable state for hunt group calls (ON). When OFF, group calls are sent to the member as normal.	OFF : no FWD ON : FWD	ON
VSF Wait Station	When a call overflows or routes to the VM group, a station number is used to identify the Mailbox for the group messages.	Station	
Mail Box Password	The password associated with the group Mailbox is defined here. The password is used in conjunction with the group Mailbox as with a normal station.	12 digits	

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Forced Forward Destination	Calls to a hunt group may forward directly to a defined destination, bypassing the hunt process. “Forced Forward”, below, must be enabled.	Sta./NET Hunt grp. VSF Annc Sys. Speed	
Forced Forward	Calls to a hunt group may forward directly to a defined destination, see above “Forced Forward Destination”. Forced Forward must be enabled for the group.	OFF ON	OFF
Wait if the 1st Announcement is busy	When a call assigned to receive an announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement (OFF).	0: OFF 1: ON	ON

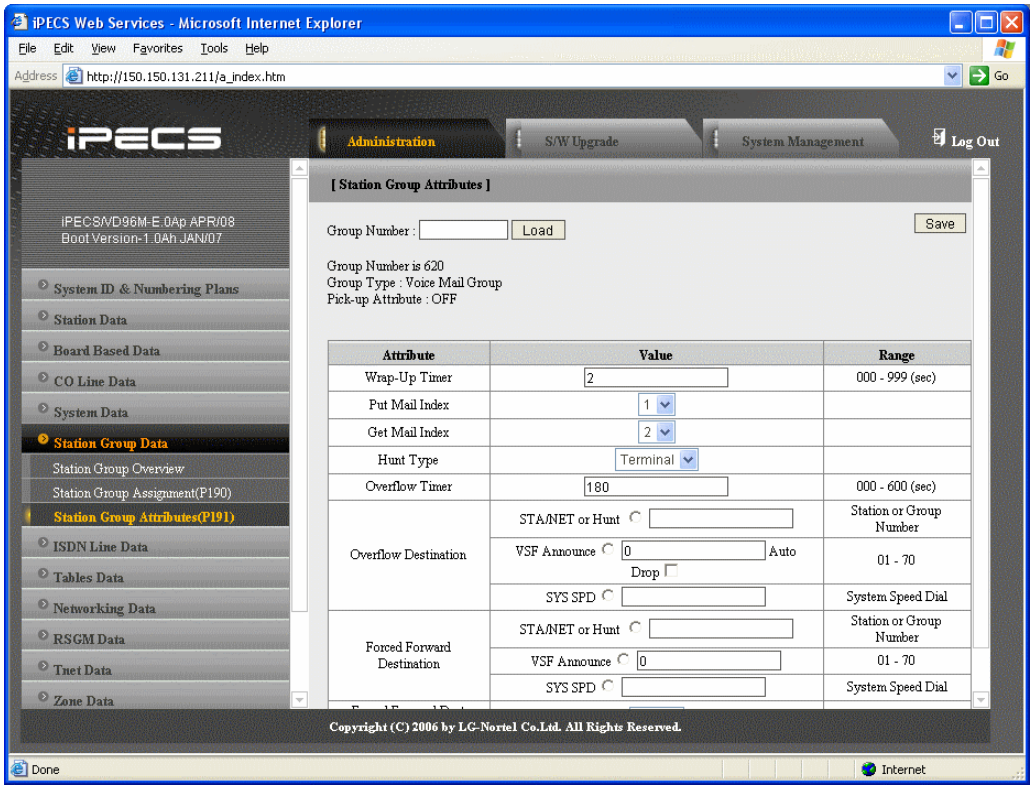


Figure 3.5.6.3-4 External Voice Mail Group Attributes

Table 3.5.6.3-4 EXTERNAL VOICE MAIL GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Warp-Up Timer	After terminating any call, the VM port will be maintained in a busy state for the duration of the Wrap-Up timer.	002~999 (seconds)	002
Put Mail Index	For external analog Voice Mail groups, an index to the Voice Mail Dial Table that contains the “Put Mail” dial code.	1~4	1
Get Mail Index	For external analog Voice Mail groups, an index to the Voice Mail Dial Table that contains the “Get Mail” dial code.	1~4	2

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Hunt Type	The type of Hunt process applied to the SLT ports connected to the VM can be assigned as Circular or Terminal.	CIRC TERM	TERM
Overflow Timer	A call to a group will remain at the last station in the group or be sent to the assigned Overflow Destination after expiration of the Overflow Timer	000~600 (seconds)	180
Overflow Destination	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or will route to the assigned Overflow Destination. If assigned VSF Announce, Auto Drop is available.	STA/NET or Hunt Number, VSF Announce, System SPD	-
Forced Forward Destination	Calls to a hunt group may forward directly to a defined destination, bypassing the hunt process. “Forced Forward”, below, must be enabled.	Sta./NET Hunt grp. VSF Annc Sys. Speed	
Forced Forward	Calls to a hunt group may forward directly to a defined destination, see above “Forced Forward Destination”. Forced Forward must be enabled for the group.	OFF ON	OFF

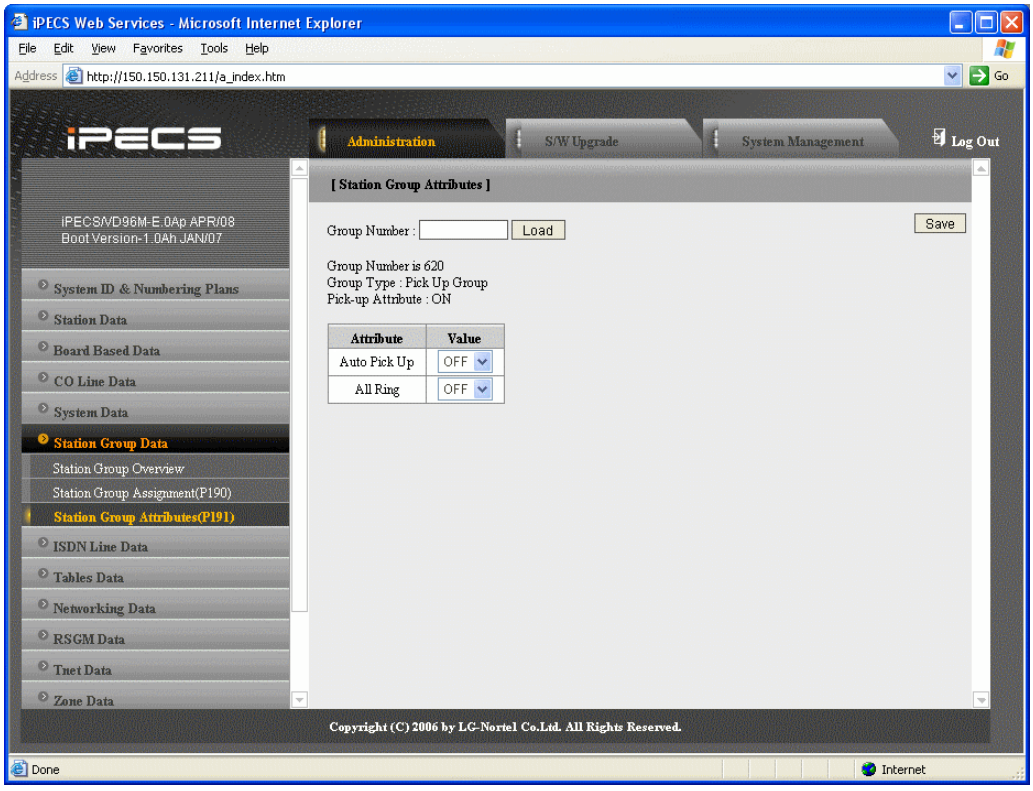


Figure 3.5.6.3-5 Pick-Up Group Attributes

Table 3.5.6.3-5 PICK-UP GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Auto Pick Up	If a group member is ringing, another member of the Group can Pick-Up the ringing call by simply going “Off-hook”.	ON OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
All Ring	When a call is offered to a member of the Pick-Up Group in the Tone Ring mode, all members will ring. Note Auto Pickup above must be “ON”.	ON OFF	OFF

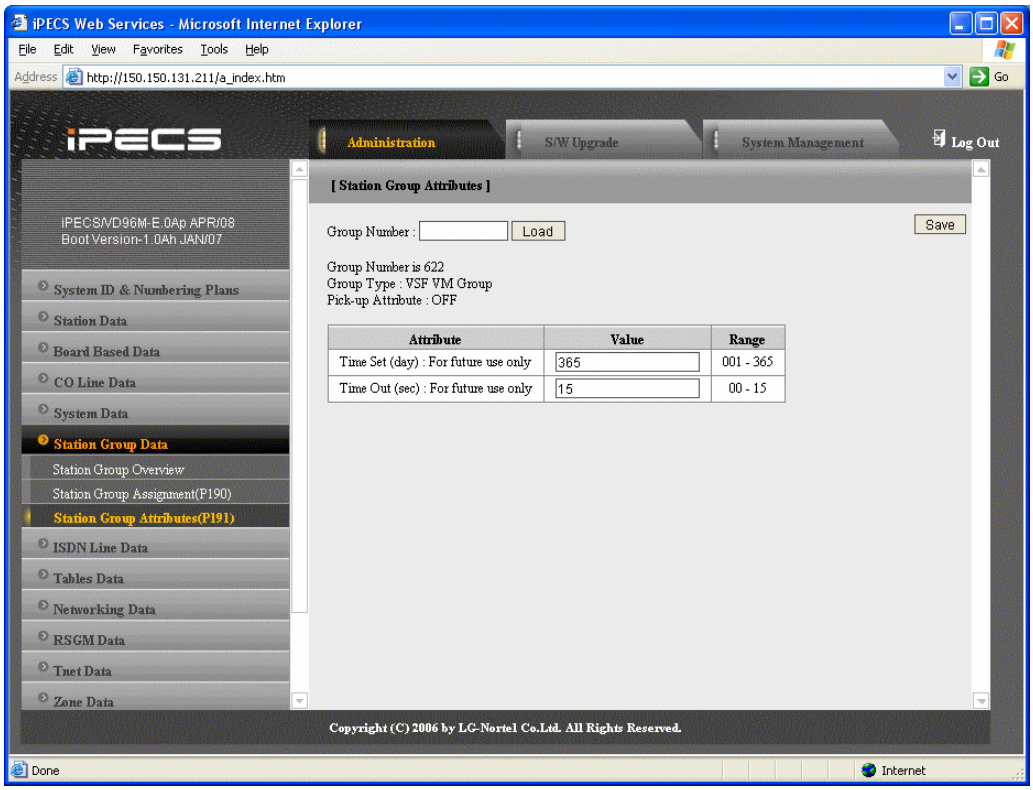


Figure 3.5.6.3-6 VSF Group Attributes

Table 3.5.6.3-6 VSF GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Time Set (day) For future use only	When voice messages are stored in the VSF, the system will maintain (store) the message for the maximum number of days set in this program (1 to 365 days). (Not used currently)	001-365 (day)	365
Time Out (sec): For future use only	This timer determines the inter-digit time for a VSF-AA or a VM session. If this timer expires while the VSF AA or VM is awaiting user input, the system will assume the remote party has disconnected and will return the channel to idle.	00-15 (seconds)	15

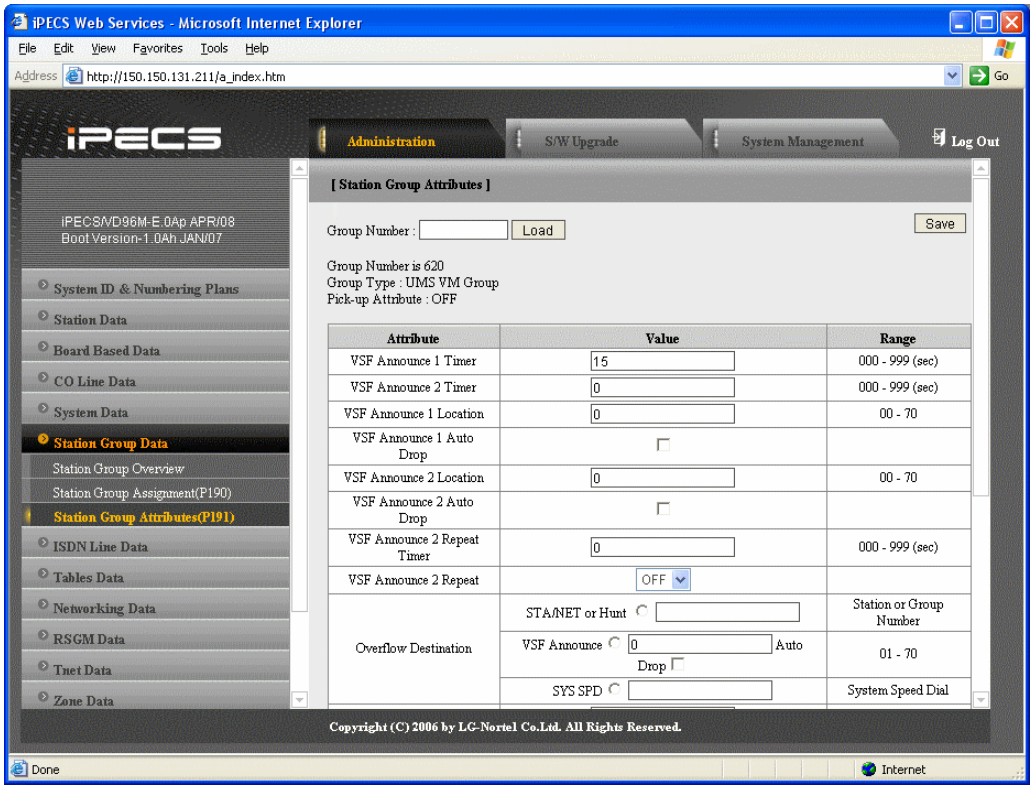


Figure 3.5.6.3-7 iPECS Feature Server Voice Mail Group Attributes

Table 3.5.6.3-7 FEATURE SERVER VOICE MAIL GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 1 Timer	If all stations in the group are busy when a call is offered, the call may continue to wait (queue) for an available FS-VM channel. If the queue period exceeds the VSF Announce 1 Timer, the call is sent to a VSF announcement. If the timer is set to 000, the call will receive the first announcement, in full, prior to the hunt process (guaranteed announcement).	000~999 (seconds)	015
Guar-Annc(Timer 0) Wait If Busy	When a call assigned to receive a guaranteed announcement arrives and all channels are busy, the call may wait with Ringback until a channel is available (ON) or bypass the announcement (OFF).	OFF ON	ON
VSF Announce 2 Timer	After the 1st announcement, a 2nd Announcement Timer is activated. At expiration, if the call remains queued to the group, the call is sent to the assigned VSF Announce 2 Location.	000~999 (seconds)	000
VSF Announce 1 Location	Each Station Hunt Group can be assigned an announcement, which is played if the call remains queued beyond the VSF Announce 1 Timer duration. The announcement location is a VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 1 Auto Drop	If this attribute is selected, the call will drop after the 1st VSF announcement	Check box	

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VSF Announce 2 Location	The Station Hunt Group can be assigned a 2nd announcement, which is played if the call remains queued beyond the VSF Announce 2 Timer duration. The announcement location is a VSF Announcement number. An entry of 00 indicates no announcement.	00~70	00: none
VSF Announce 2 Auto Drop	If this attribute is selected, the call will drop after the 2nd VSF announcement		
VSF Announce 2 Repeat Timer	The 2nd announcement can be repeated to calls that remain in queue at intervals of the announcement 2 repeat timer. Note VSF Announce 2 Repeat below must be "ON".	000~999 (seconds)	000
VSF Announce 2 Repeat	After the 2nd announcement, if the call remains queued to the group, the 2nd VSF announcement can be repeated at the VSF Announce Repeat timer interval, above.	ON OFF	OFF
Overflow Destination	A call to the group will continue to route through the group until answered or all group members have been tried. The call will remain at the last station or route to the assigned Overflow Destination. If assigned VSF Announce, Auto Drop is available.	STA/NET or Hunt Number, VSF Announce, System SPD	
Overflow Timer	A call to a group will remain at the last station in the group or route to the assigned Overflow Destination after expiration of the Overflow Timer.	000~600 (seconds)	180
No Answer Timer	Calls to a station in the group are directed to the station, if unavailable or unanswered in the No Answer Timer, the call can be routed based on the assigned hunt process.	00~99 (seconds)	15
Pilot Hunt	A FS-VM hunt group can be set so that only calls to the pilot number (station group number) will hunt.	ON OFF	ON
Alternate Destination	When a call comes into the group and there are no group members available, the call will be routed to the assigned Alternate Destination.	STA/NET or Hunt Number, System SPD	....
Hunt Group type	The hunt process for the FS-VM group can be defined as Circular or Terminal.	CIRC TERM	TERM
Wrap-Up Timer	After terminating any call, the FS port will be maintained in a busy state for the duration of the Wrap-Up Timer.	000~999 (seconds)	008
Forced Forward Destination	Calls to a hunt group may forward directly to a defined destination, bypassing the hunt process. "Forced Forward", below, must be enabled.	Sta./NET Hunt grp. VSF Annc Sys. Speed	
Forced Forward	Calls to a hunt group may forward directly to a defined destination, see above "Forced Forward Destination". Forced Forward must be enabled for the group.	OFF ON	OFF

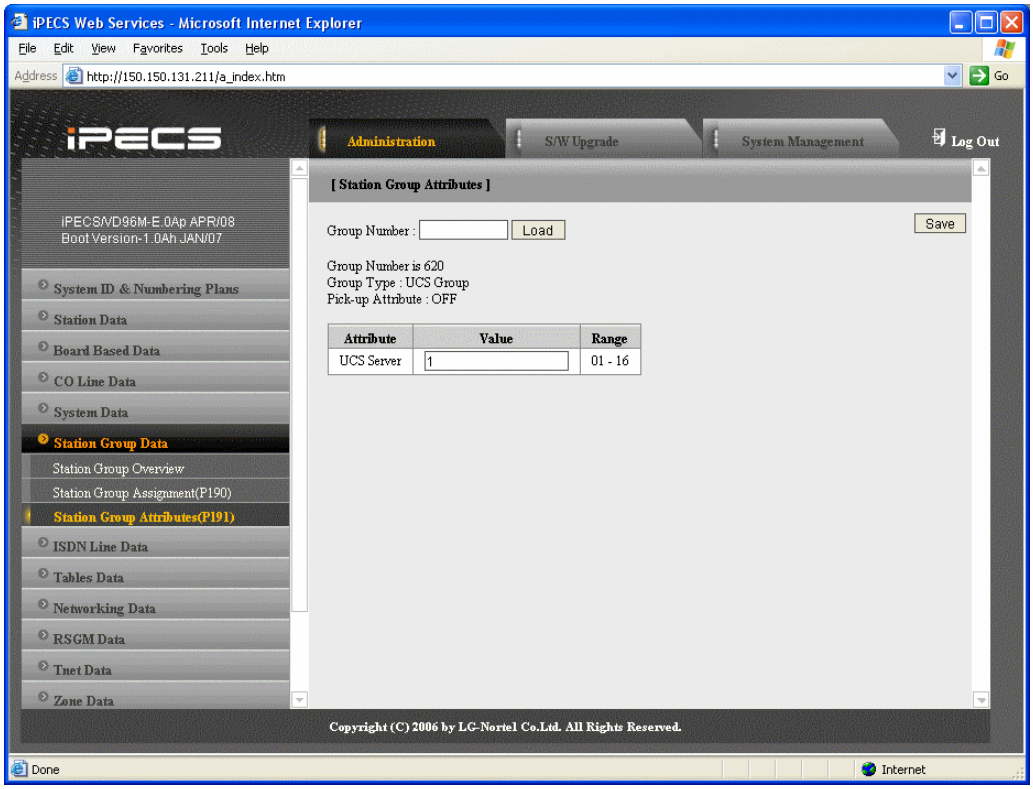


Figure 3.5.6.3-8 iPECS UCS Server Group Attributes

Table 3.5.6.3-8 UCS GROUP ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
UC Server	UCS Server number, this value must be set to 1.	00-16	0

3.5.6.4 Pick Up Group Overview

Selecting the Pick Up Group Overview item will return the Station Pick Up Group Overview page,Figure 3.5.6.4-1. This page displays the Station Group member stations for all the Station Pick Up Groups. Note that data cannot be entered on this page.

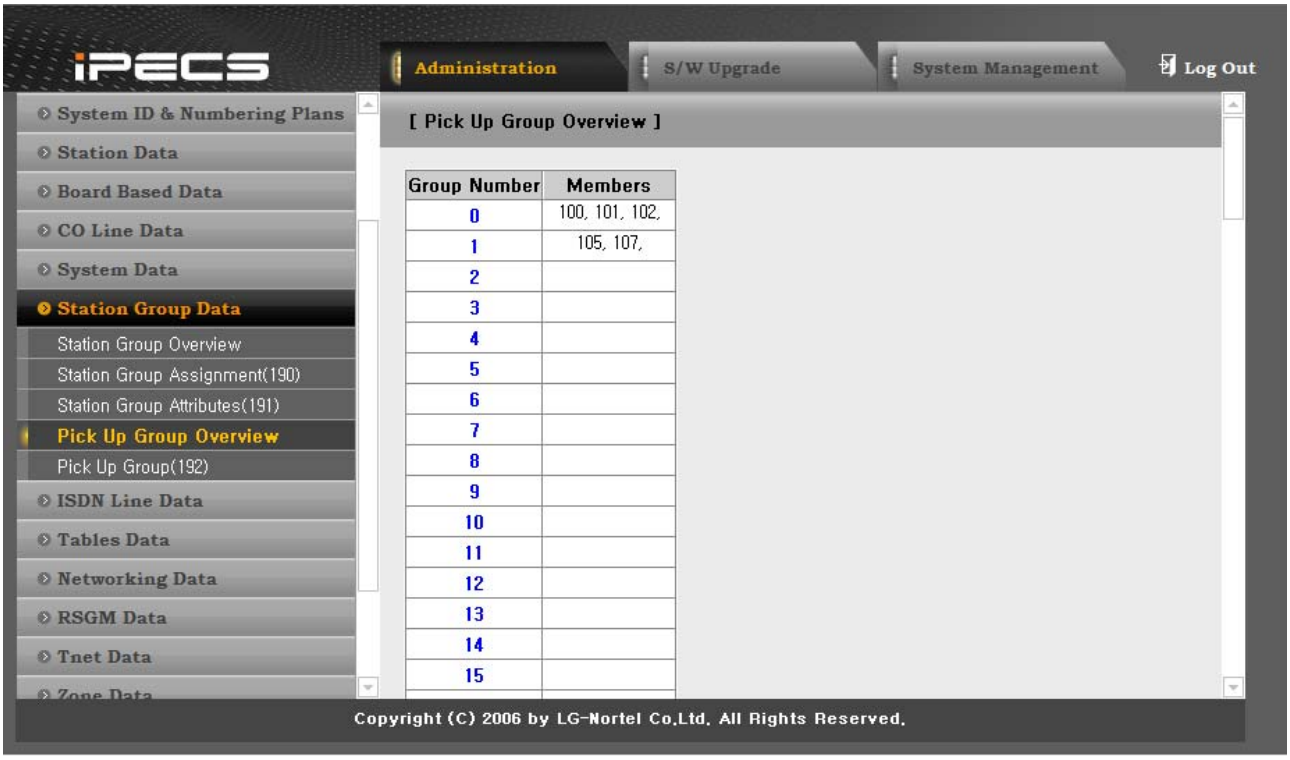


Figure 3.5.6.4-1 Pick Up Group Overview

3.5.6.5 Pick Up Group Assignment

Re: **PGM CODE** 192

Selecting Pick Up Group will display the Pick Up Group Assignment entry page,Figure 3.5.6.5-1. Enter the desired Pick Up Group number and click Load to display the group member Assignment.

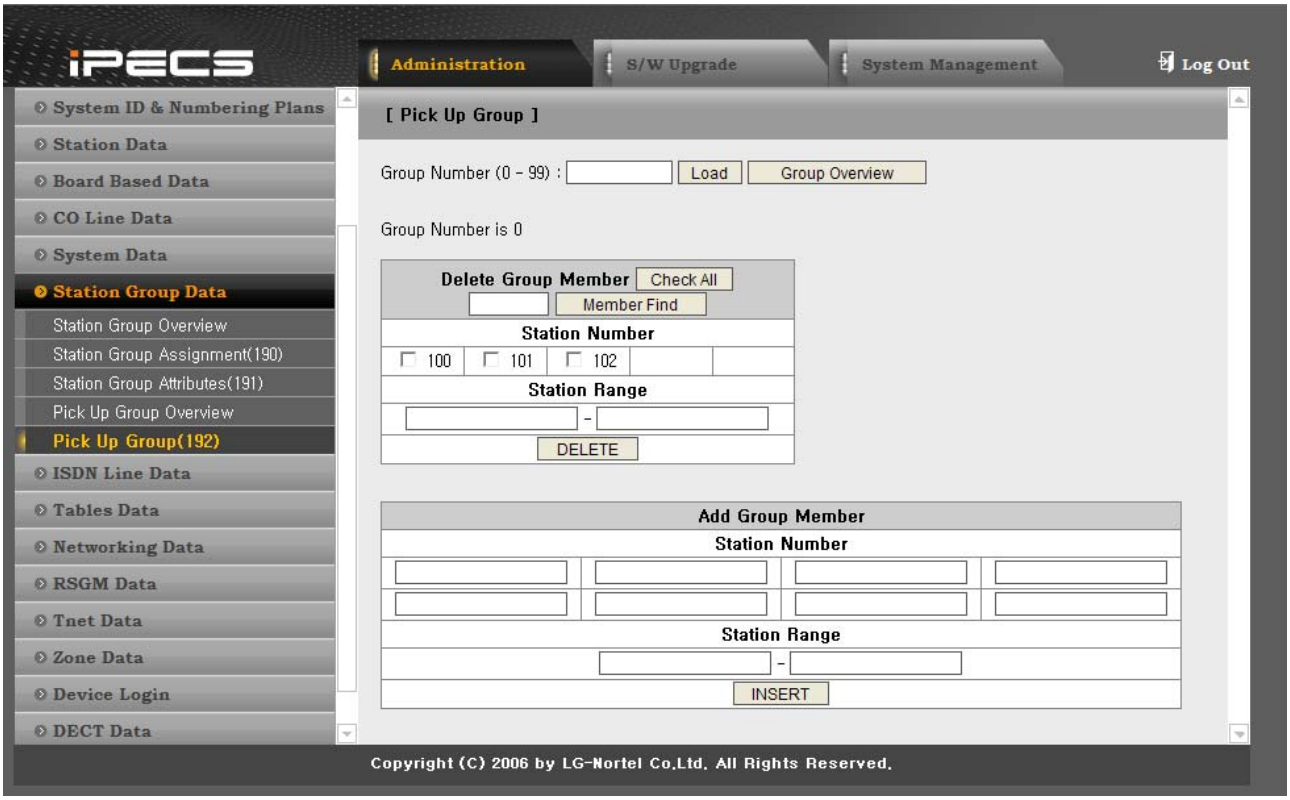


Figure 3.5.6.5-1 Pick Up Group Assignments

Table 3.5.6.5-1 PICK UP GROUP ASSIGNMENT

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Member	Assign stations as members of a station group or, for the Net VM group type, defines the Net Number of the group.		-

3.5.7 ISDN Line & ICLID Routing Data

Selecting the ISDN Line Data program group returns the sub-menu displayed in Figure 3.5.7-1.

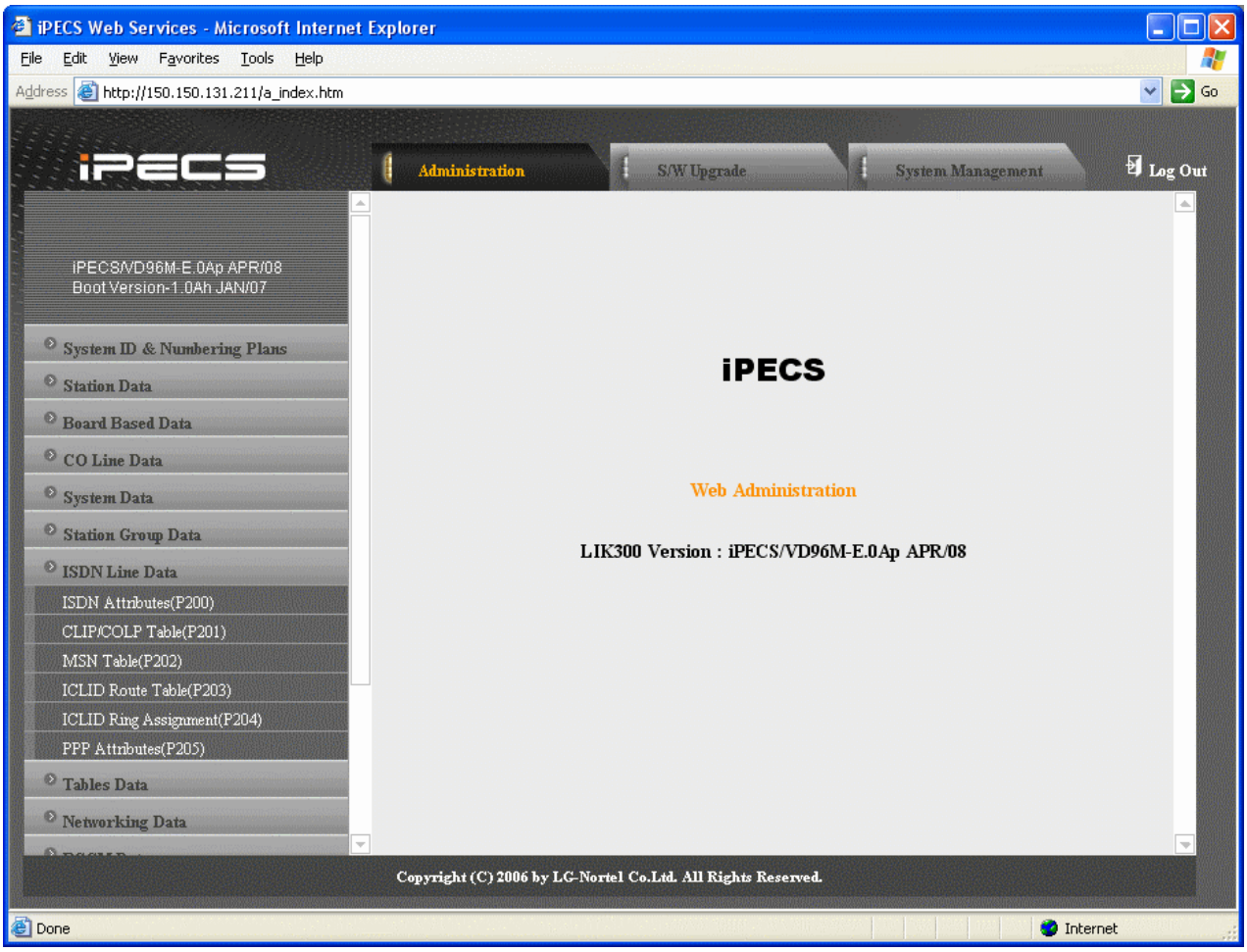


Figure 3.5.7-1 ISDN Line Data

Each ISDN (Integrated Services Digital Network) Line provides digital services to the end-user. Basic Rate Lines have three (3) channels, 2 B channels and a D channel. The 2 B channels provide 64 Kbps each, a total of 128 Kbps for “Bearer” or voice channels. The D channel provides a 16 Kbps signaling channel. Primary Rate Lines have 23/30 64 Kbps ‘B’ channels and 1/2 64 Kbps signaling channels. For proper operation, entries are required for various attributes and Tables to match the ISDN circuit and services.

3.5.7.1 ISDN Attributes

Re: **PGM CODE** 200

Selecting ISDN Attributes will display the ISDN Attributes data entry page, Figure 3.5.7.1-1.

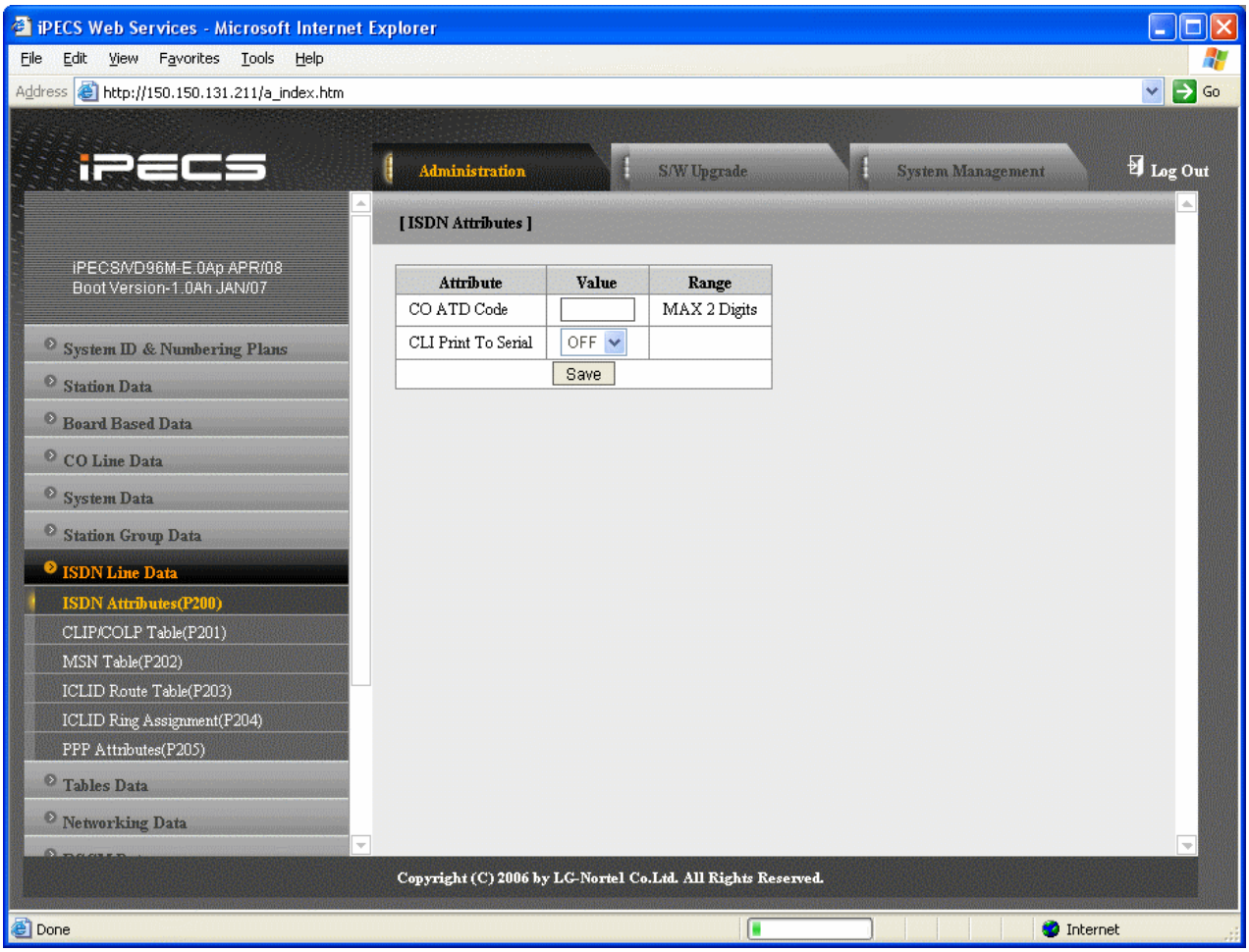


Figure 3.5.7.1-1 ISDN Attributes

ISDN attributes define several characteristics of the ISDN interface. ISDN call cost services (Advice of Charge), CLI modification, voice encoding, and other characteristics of the interface are defined, refer to Table 3.5.7.1-1.

Table 3.5.7.1-1 ISDN LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO ATD Code	When the system is set to send the station number with ISDN CLIP or COLP, either the station number or this ATD code will be sent based on Station Attributes section 3.5.2.2, EXT or ATD assignment.	Max.2 Digits	-
CLI Print To Serial	The ISDN Calling Line Id may be included in call records, refer to SMDR Attributes section 3.5.5.17.	OFF ON	OFF

3.5.7.2 CLIP/COLP Table

Re: **PGM CODE** 201

Selecting CLIP/COLP Table will display the CLIP/COLP Table Attributes data entry page, Figure 3.5.7.2-1.

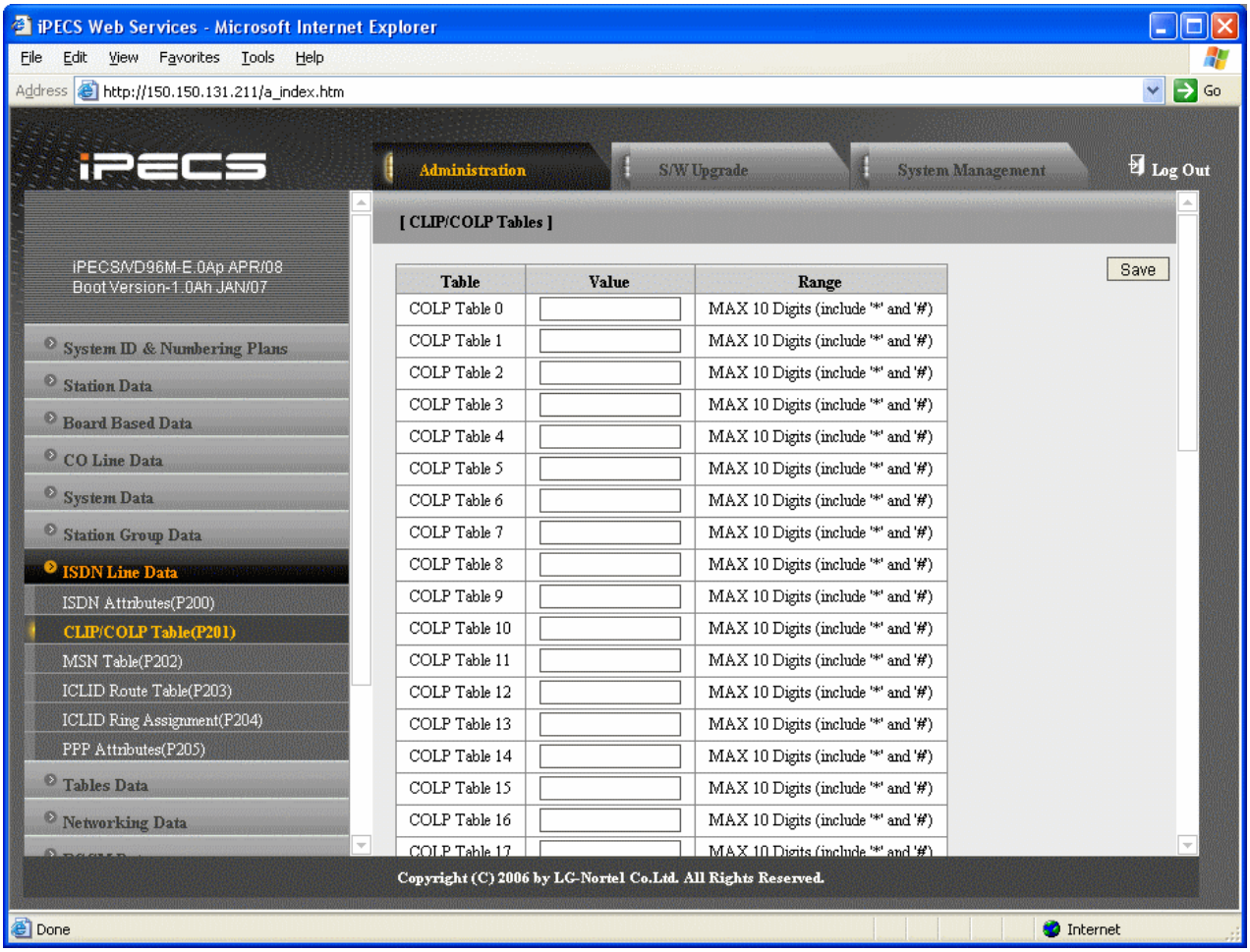


Figure 3.5.7.2-1 CLIP/COLP Table

Normally, the system will send the primary Directory Number of the ISDN Line in the ISDN call SETUP and CONNECT messages to identify the caller (CLIP) or the answering (COLP) party respectively. Under certain circumstances, it may be desirable to provide the secondary or DID number for the ISDN Line. In these cases, the CLIP/COLP Table may be used to define the digits sent. The number sent is selected based on the index assigned for the ISDN Line under CO/IP line Attributes section 3.5.4.1.

For CLIP/COLP Table entry 9 (iPECS-Micro, iPECS-50 & MFIM100) or Table entry 49 (MFIM300 & MFIM600 & MFIM1200), the CLI Station Number is sent in place of the station number. For all other entries, the station number is sent as a suffix to the number in the Table. Note that this number is sent only if CLIR/COLR is disabled under the CLIR Service and COLR Service assignments in the Station ISDN Attributes.

3.5.7.3 MSN Table

Re: **PGM CODE** 202

Selecting MSN Table will display the MSN Table data entry page, Figure 3.5.7.3-1.

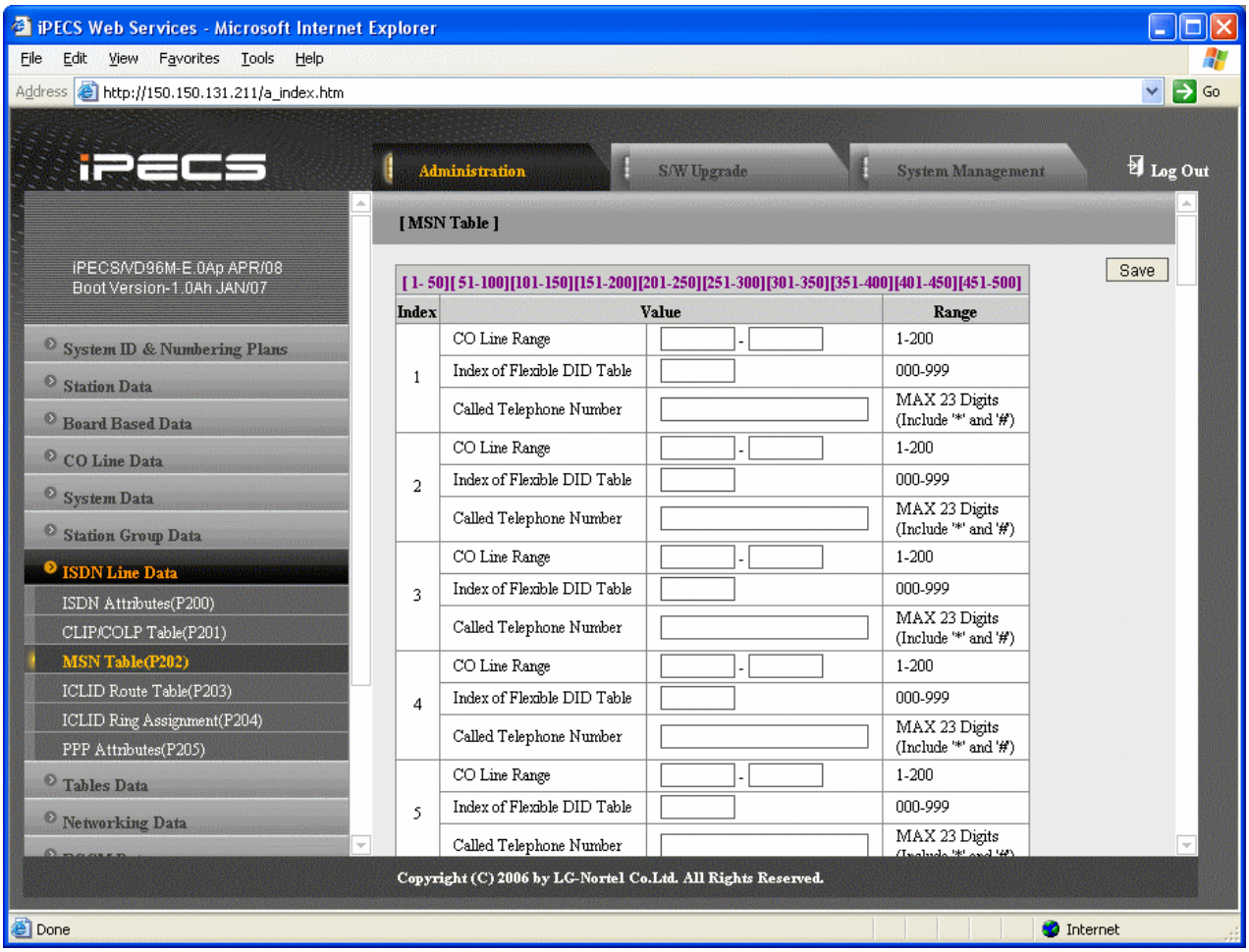


Figure 3.5.7.3-1 MSN Tables

When an ISDN Line assigned for DID operation receives an incoming call, the call will be routed to a station based on the Flexible DID Table Index assigned in the MSN Table. Each iPECS configuration has a different capacity as indicated by the entry range in Table 3.5.7.3-1.

Table 3.5.7.3-1 MSN TABLE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
CO Line Number	CO Line No.	IPECS-Micro 01~05 MFIM100 IPECS-50 01~42 Other MFIMs 001~200 or 001~400	None
Index of Flexible DID Table	Index to the Flexible DID Table, section 3.5.8.10	000~999	None
Called Telephone Number	Telephone Number (called number)	23-Digits	None

3.5.7.4 ICLID Route Table

Re: **PGM CODE** 203

Selecting ICLID Route Table will display the ICLID Route Table data entry page, Figure 3.5.7.4-1. Select the ICLID Table Index range desired, blue text above the table header. Selecting the blue colored text in the Table header will sort the table based on the selected column.

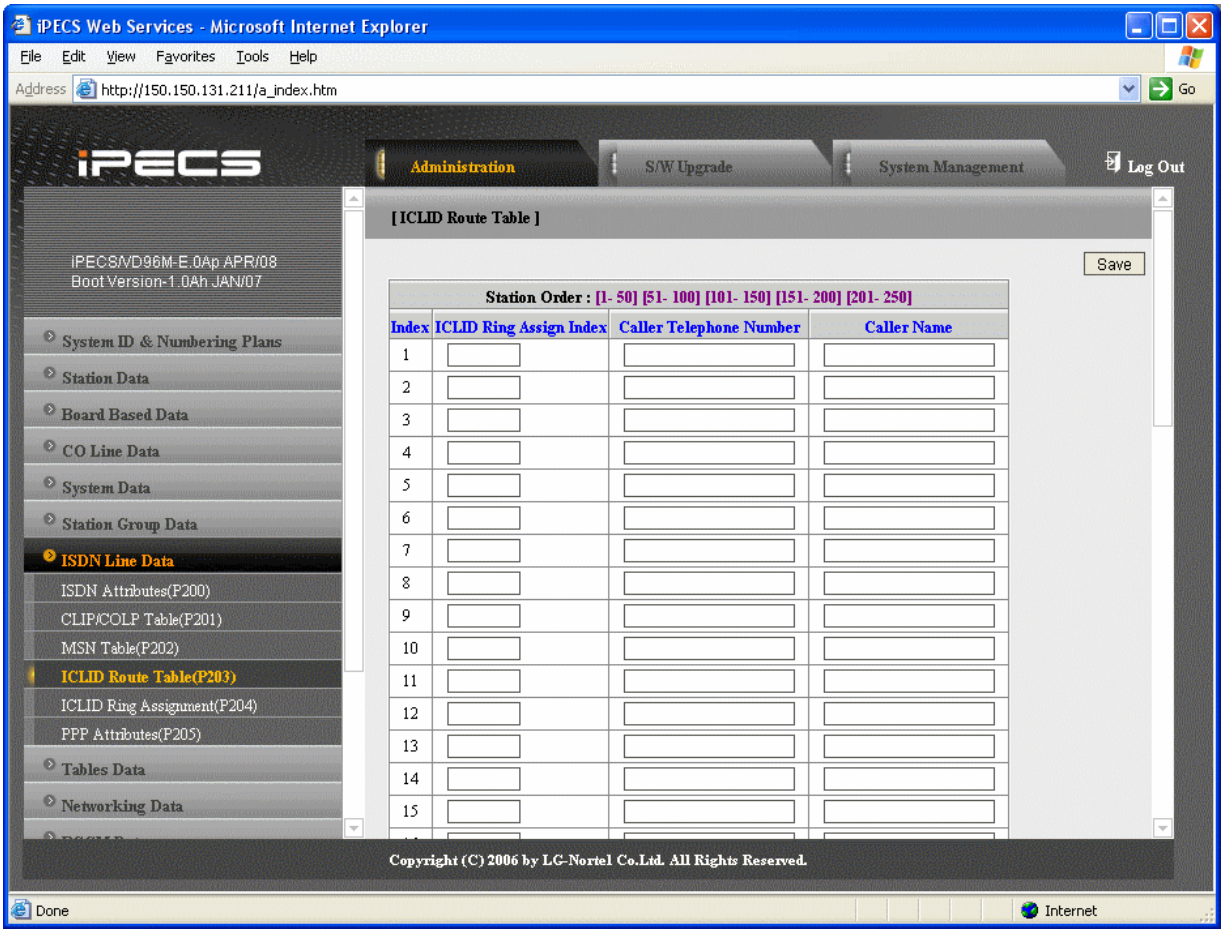


Figure 3.5.7.4-1 ICLID Route Table

The system can employ ICLID (Incoming Calling Line Id) to determine the routing of incoming external calls. Each CO/IP Line, including DID Lines and ACD group calls may be assigned to employ ICLID routing. The system will compare the received ICLID to entries in the ICLID Route Table and, if a match is found, will route the call to the destination defined in the ICLID Ring Assignment Table index assigned here.

Table 3.5.7.4-1 ICLID ROUTE TABLE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
ICLID Ring Assign Index	Index to the ICLID Ring Assignment Table that determines the call routing.	001~250	None
Caller Telephone Number	ICLID (Incoming Caller Id) to match for the index. If the Caller Id matches the Table entry, the index is used to select the route.	24 Digits	None
Caller Name	ICLID name that is sent by the system to the destination for the ICLID routed call.	12. Character	None

3.5.7.5 ICLID Ring Assignment Table

Re: **PGM CODE** 204

Selecting ICLID Ring Assignment Table will display the ICLID Ring Assignment Table data entry page, Figure 3.5.7.5-1.

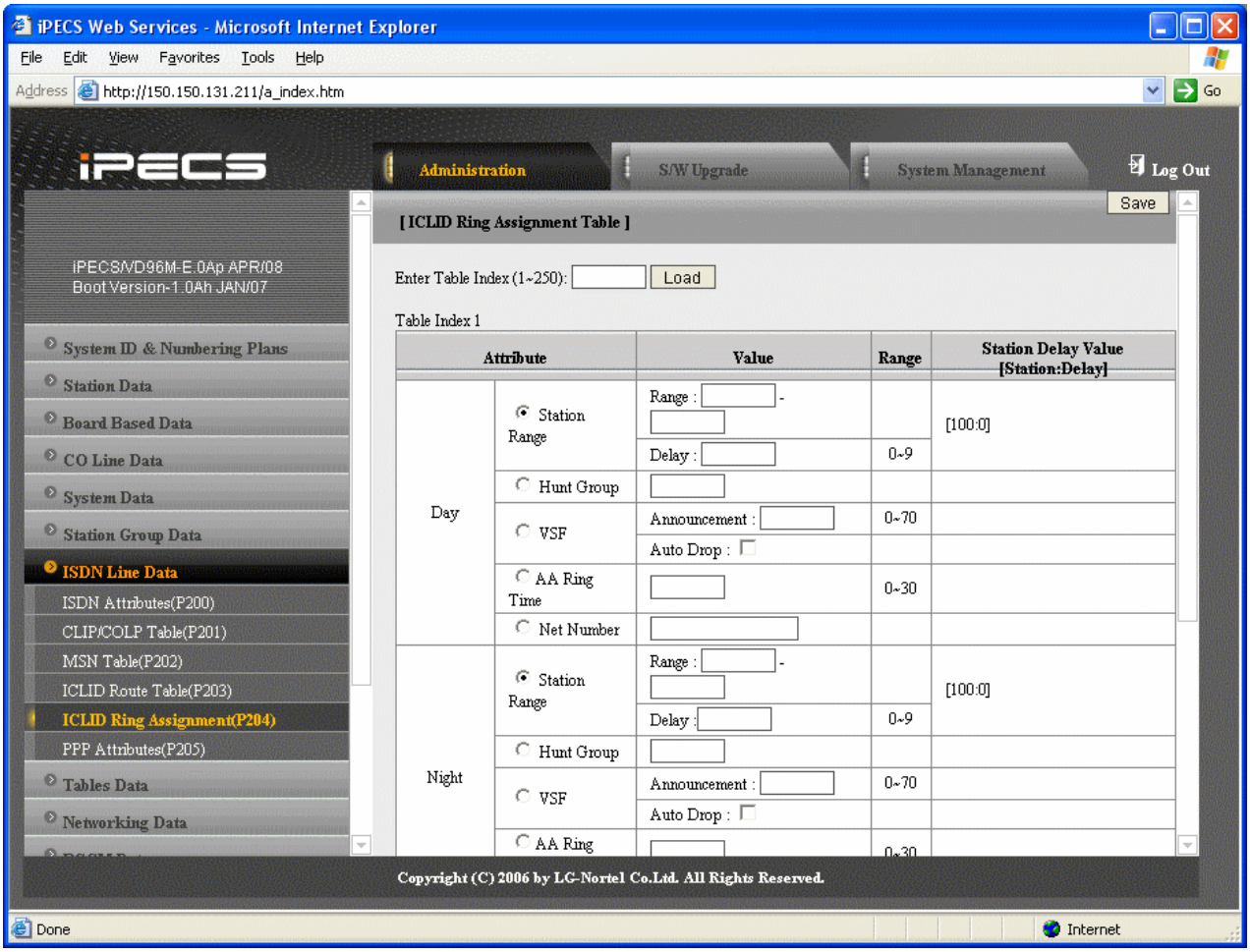


Figure 3.5.7.5-1 ICLID Ring Assignment Table

If the Incoming Caller ID matches an entry in the ICLID Route Table, the index from the Table is used to determine the call routing from the ICLID Ring Assignment Table. Separate ring assignments are made for Day, Night, and Timed Ring mode for each index, 001 to 250, in this table. When assigned to ring to a VSF/VMIM announcement, the call can be automatically dropped after the announcement by entering '#' after the announcement number.

When CO Lines are programmed to Ring an external AA/VM, VSF or Feature Server Group as an Automated Attendant, the Ring signal can be on an immediate or delayed basis allowing other stations/groups to be assigned Ring and answer prior to signaling the AA. The delay is defined in seconds from 00 to 30.

3.5.7.6 ISDN PPP Web Admin Attributes

Re: **PGM CODE** 205

Selecting PPP Attributes will display the PPP Attributes data entry page, Figure 3.5.7.6-1.

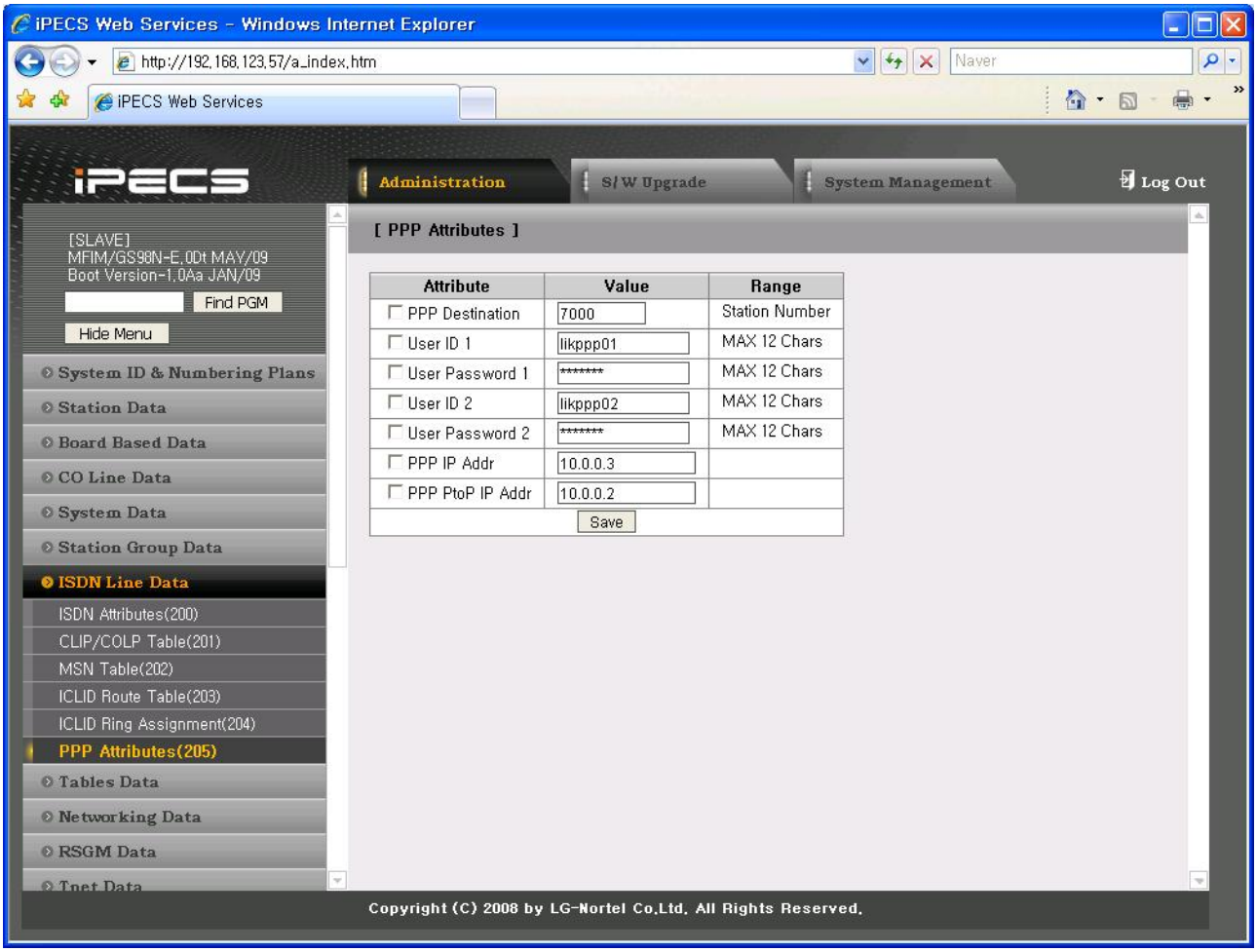


Figure 3.5.7.6-1 PPP Attributes

In addition to remote access via an IP network connection, the system database may be accessed remotely via an ISDN connection. Placing a call over an ISDN Line to the designated PPP Station will provide a connection to the system database. The system will request a user id and password, which must match one of the User Ids and passwords assigned. After matching id and password are received, the iPECS Home page is provided and Web Admin is available as explained earlier in this section 3.

Table 3.5.7.6-1 PPP ATTRIBUTES

ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
PPP Destination	If the incoming capability is 64 Kbps unrestricted digital and the called party number matches the PPP destination, the system will automatically answer the call and request PPP ID and password.	Station number	None
User ID 1	System accepts this PPP ID 1	12 Character	likppp01
User Password 1	The password entered is used to authorize PPP ID 1.	12 Character	lpkts01
User ID 2	System accepts this PPP ID 2	12 Character	likppp02
User Password 2	The password entered is used to authorize PPP ID 2.	12 Character	lpkts02

ATTRIBUTE/DISPLAY	DESCRIPTION	RANGE	DEFAULT
PPP IP Addr	Operator can configure PPP IP Address with this option. To apply this option, system must be restarted.	IP Address	
PPP PtoP IP Addr	Operator can configure PPP Point to Point IP Address with this option. To apply this option, system must be restarted.	IP Address	

3.5.8 Tables Data

Selecting the Tables Data program group returns the sub-menu displayed in Figure 3.5.8-1.

Figure 3.5.8-1 Tables Data

3.5.8.1 LCR Control Attributes

Re: **PGM CODE** 220

Selecting LCR Control Attributes will display the LCR Control Attributes data entry page, Figure 3.5.8.1-1.

The LCR Tables provide a mechanism to define the database, which will route outgoing calls, particularly long distance, using the most cost effective route. User dialed digits are compared to table entries and modified appropriately based on time of day, day of week, and assigned routes. There are four LCR Tables, LCR Control Attributes, LCR Leading Digit Table, LCR Digit Modification Table, and LCR Initialization Table.

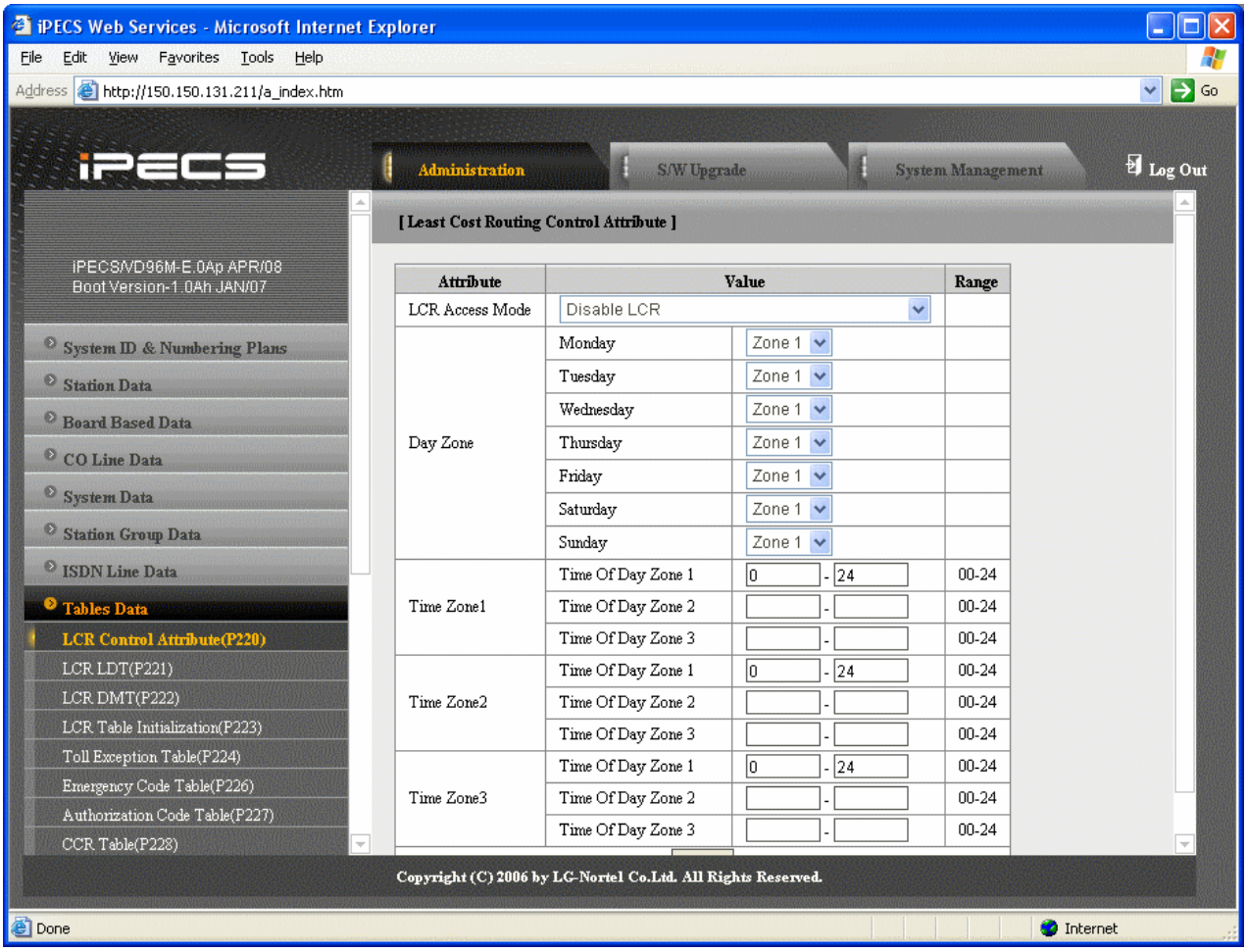


Figure 3.5.8.1-1 LCR Control Attributes

The LCR Control Attributes Table, among other items, allows assignment of the LCR Access Modes. The LCR Access Modes defines the user operations that will access the LCR feature. The LCR Access Modes are:

LCR Disabled.
Loop (user dials '9' or CO/IP Group code (8xx), or presses a Loop button).
Loop and Internal (user dials digits without a CO/IP Access Code prefix).

Loop and Direct CO Line (user dials CO Line Access Code (88xx for iPECS-Micro, iPECS-50 & MFIM100, 88xxx for other MFIMs or pressing a {CO line} button).
Loop, Direct CO Line, and Internal.
Loop, Direct CO Line, and Internal and Direct Loop.

In addition, days of the week are grouped into zones (Day Zones) and the time of day can be set into three groups (Time Zones). Table 3.5.8.1-1 provides general descriptive information and input ranges.

Table 3.5.8.1-1 LCR ASSIGNMENT

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
LCR Access Mode	This entry defines the effective LCR modes, the modes by which the user can access LCR.		
Day Zone	Each day of the week is assigned to a Day Zone (1~3). The active Day Zone is the Zone assigned to the current day of the week.	days of the week	
Time Zone1	This entry defines the hours of the day during which Time Zone 1 is active. Note hours not defined in Time Zone 2 and 3 are automatically part of Time Zone 1.	00~24	00-24
Time Zone2	This entry defines the hours of the day during which Time Zone 2 is active.	00~24	
Time Zone3	This entry defines the hours of the day during which Time Zone 3 is active.	00~24	

3.5.8.2 LCR – LDT (Leading Digit Table)

Re: **PGM CODE** 221

Selecting LCR-LDT (Leading Digit Table) will display the LCR-LDT data entry page, Figure 3.5.8.2-1. Select the LDT Index range desired, blue text above the table header.

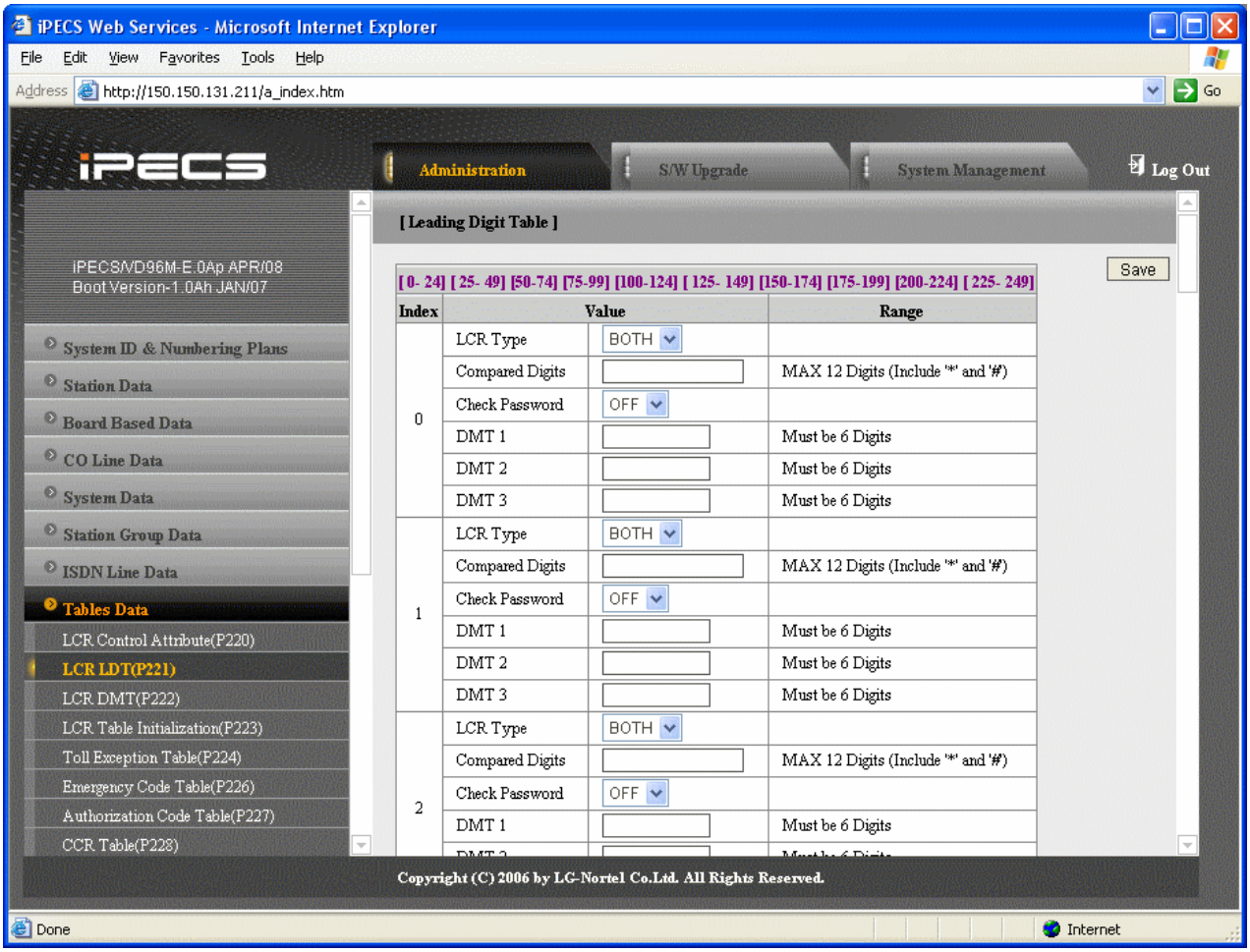


Figure 3.5.8.2-1 LCR-Leading Digit Table

The Leading Digits Table is used to analyze the user-dialed digits to determine an appropriate Digit Modification Table Index. The Table is divided into bins. The applicable LCR Access Modes (LCR Type) and the digits (up to the first 12) dialed by the user are compared with the entries in the Leading Digit Table. In addition, indices to the Digit Modification Table are defined for each Time Zone of each Day Zone. Table 3.5.8.2-1 provides a brief description and entries for the Leading Digit Table.

Table 3.5.8.2-1 LCR LEADING DIGITS

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
LCR Type	This entry defines the LCR modes that will apply to this LDT index. To apply the modification, the LCR Type must be part of the LCR Mode defined section 3.5.8.1.	Internal CO Line Both	Both

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Compared Digits	Up to 6 digits that, if matched by the user dialed digits, will access the DMT Indices of the associated Leading Digit Table bin.	12 digits	
Check Password	If enabled (ON), when the dialed digits match the LDT digits, the system will send second dial tone to request the user input a valid Authorization code.	0n/off	off
DMT1	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 1. The appropriate index will be selected for the current Day and Time Zone. One entry (DMT index) is made for each Time Zone, six (6) digits.	Must be 6 digits 3 DMT indices	
DMT2	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 2. The appropriate index will be selected for the current Day and Time Zone. One entry (DMT index) is made for each Time Zone, six (6) digits.	Must be 6 digits 3 DMT indices	
DMT3	This entry defines the Digit Modification Table index (00~99) for each Time Zone for Day Zone 3. The appropriate index will be selected for the current Day and Time Zone. One entry (DMT index) is made for each Time Zone, six (6) digits.	Must be 6 digits 3 DMT indices	

3.5.8.3 LCR – DMT (Digit Modification Table)

Re: **PGM CODE** 222

Selecting LCR-DMT (Digit Modification Table) will display the LCR-DMT data entry page, Figure 3.5.8.3-1. Select the DMT Table Index range, blue text above the table header, desired.

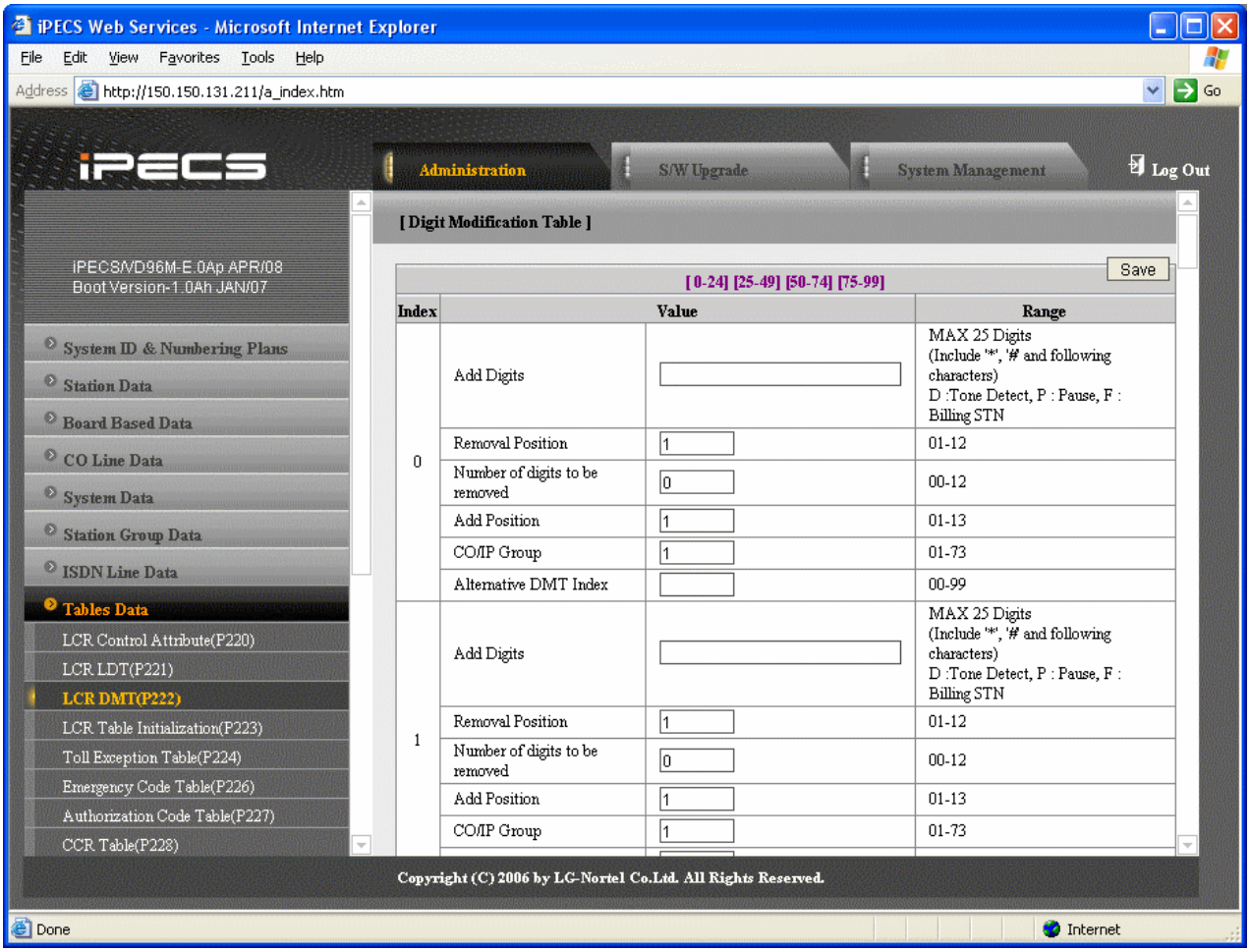


Figure 3.5.8.3-1 LCR Digit Modification Table

Using the index determined from the analysis of the LCR Leading Digits Table, the dialed number is modified in accordance with the Digit Modification Table and sent over the CO/IP group assigned for the index.

Digits of the dialed number can be deleted based on the “Removal Position” and “Number of digits to be removed” entries and a digit stream can be inserted in the resulting number. Counting from the first dialed digit, the Removal Position defines the location of the digit where removal begins and, the Number of digits to be removed defines the number of digits to remove. The “Add Digits” are then inserted in the resulting number at the digit position assigned by the Add Position entry. The resulting number is then dialed over the CO/IP path assigned. If the assigned path is not available, the “Alternate DMT index” is used to determine the number and CO/IP path to be used.

Table 3.5.8.3-1 LCR DIGIT MODIFICATION

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Add Digits	This entry defines the digit stream to insert in the number after digit removal. Digits 0~9, `*', `#', and special characters, P: timed Pause D: Dial tone detect F: Billing station number	25 digits	
Removal Position	This entry defines the position of the digit where removal is to begin, starting with the 1st dialed digit (01).	01~12	1
Number of digits to be removed	This entry defines the number of digits to remove starting at the "Removal Position".	00~12	0
Add Position	This entry defines the position in the number, after digit removal, where the Add Digits are inserted.	01~13	1
CO/IP Group	This entry defines the CO/IP Group that the system will attempt to use for the call.	IPECS-Micro iPECS-50 MFIM100 01~20 Other MFIM 00~72	1
Alternative DMT Index	This entry defines an Alternate Digit Modification Table Index to use if no path is available in the assigned CO/IP Group.	00~99	

3.5.8.4 LCR Table Initialization

Re: **PGM CODE** 223

Selecting LCR Table Initialization will display the LCR Table Initialization data entry page, Figure 3.5.8.4-1.

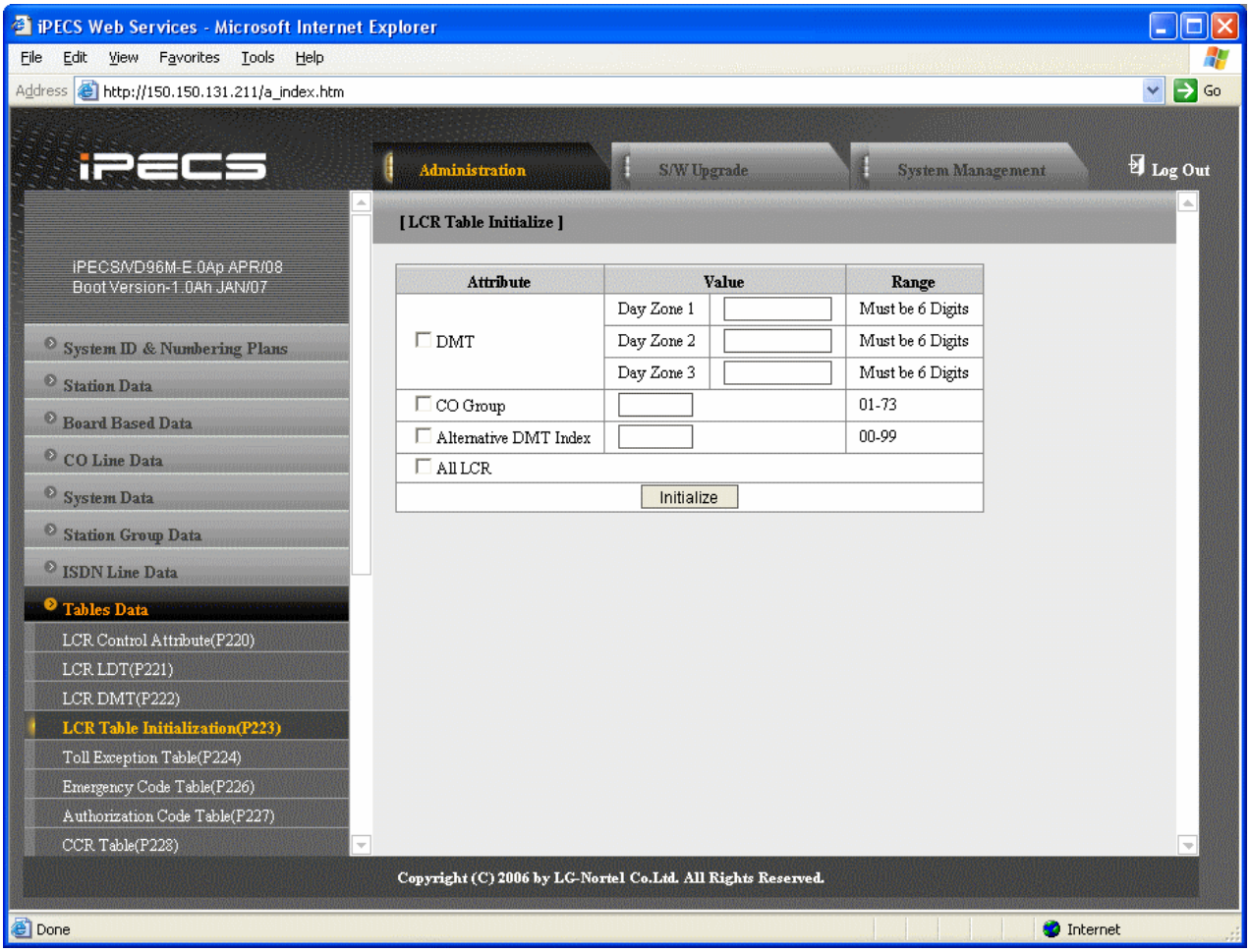


Figure 3.5.8.4-1 LCR Table Initialization

The LCR Table Initialization allows global values to be assigned to the various Digit Modification Table entries. In addition, the LCR Leading Digits and LCR Digit Modification Tables can be initialized to the default (no entries) state.

3.5.8.5 Toll Exception Table

Re: **PGM CODE** 224

Selecting Toll Exception Table will display the Toll Table data entry page, Figure 3.5.8.5-1. Select the desired Allow or Deny Table, blue text above the table header, desired.

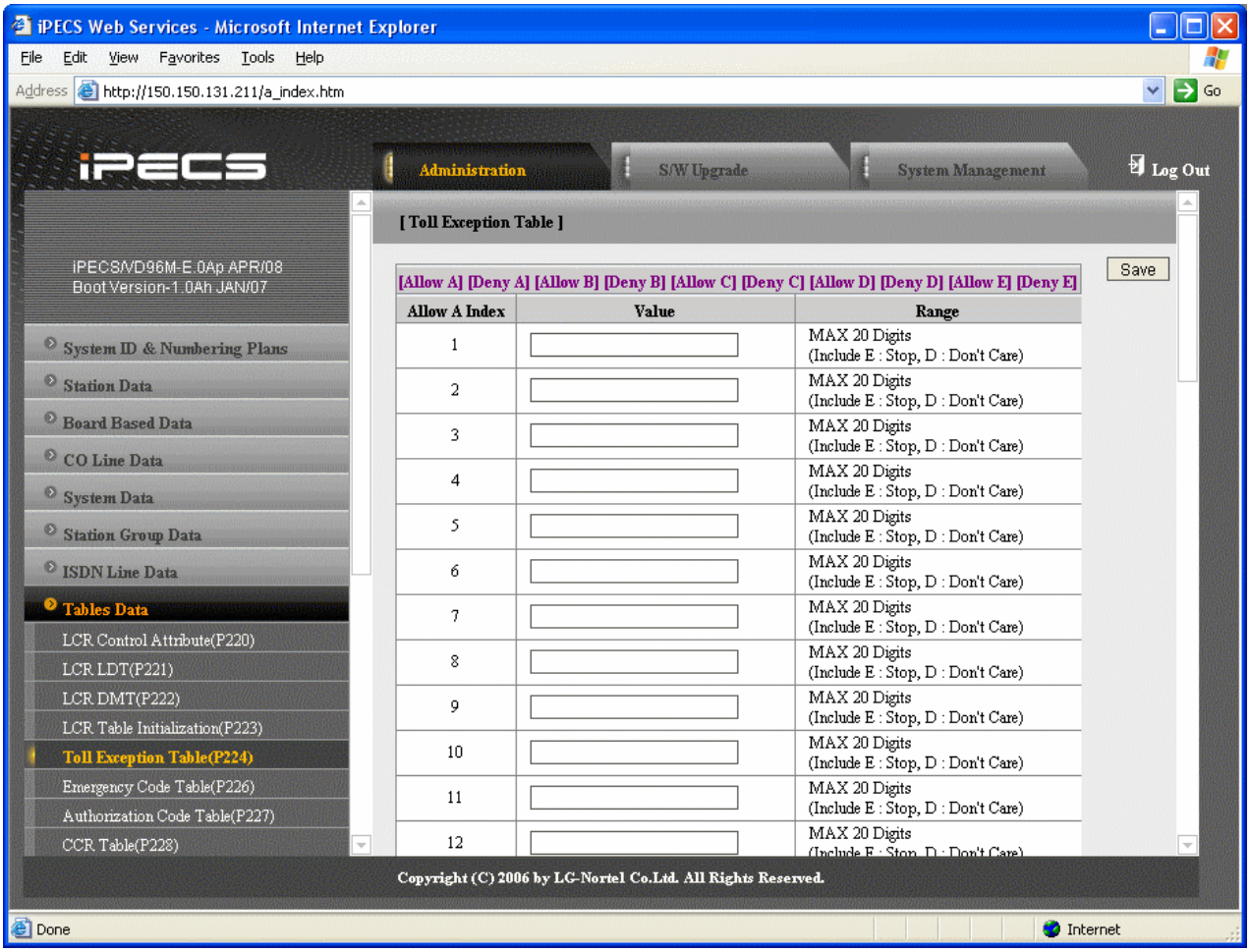


Figure 3.5.8.5-1 Toll Exception Table

There are ten Toll restriction Tables arranged in pairs. Each pair consists of an Allow Table and a Deny Table. Allow and Deny entries for Table `A' apply to Station and DISA Class of Service 2/4 and 11. Allow and Deny entries for Table `B' apply to Station and DISA Class of Service 3/4 and 11. Allow and Deny entries for Table `C' apply to Station and DISA Class of Service 5 and 6. Allow and Deny entries for Table `D' apply to Station and DISA Class of Service 8/10 and 11. Allow and Deny entries for Table `E' apply to Station and DISA Class of Service 9 to 11.
The Allow and Deny Tables each permit up to 50 entries of up to 20 digits. Entries in the Tables can be any digit (0-9), "#" as a wild card (don't care) digit, or "*" as an end of entry digit.

Based on Table entries, stations or DISA users are allowed or denied dialing specified numbers. The following rules apply to establishing restrictions based on the Table entries:

If the appropriate Allow/Deny Table pair has no entries and COS is 2 to 4, no restrictions are

applied. If the COS is 5 or 6, no Long Distance dialing is allowed.

If entries are only made in the Allow Table, only those numbers entered can be dialed, all other dialed numbers will be restricted.

If entries are only made in the Deny Table, only those numbers entered will be restricted and all other numbers can be dialed

When there are entries in both the Allow and Deny Table pair, if the number is in the Deny Table, the number will be restricted otherwise the number can be dialed without restriction.

3.5.8.6 Emergency Code Table

Re: **PGM CODE** 226

Selecting Emergency Code Table will display the Emergency Code Table data entry page, Figure 3.5.8.6-1.

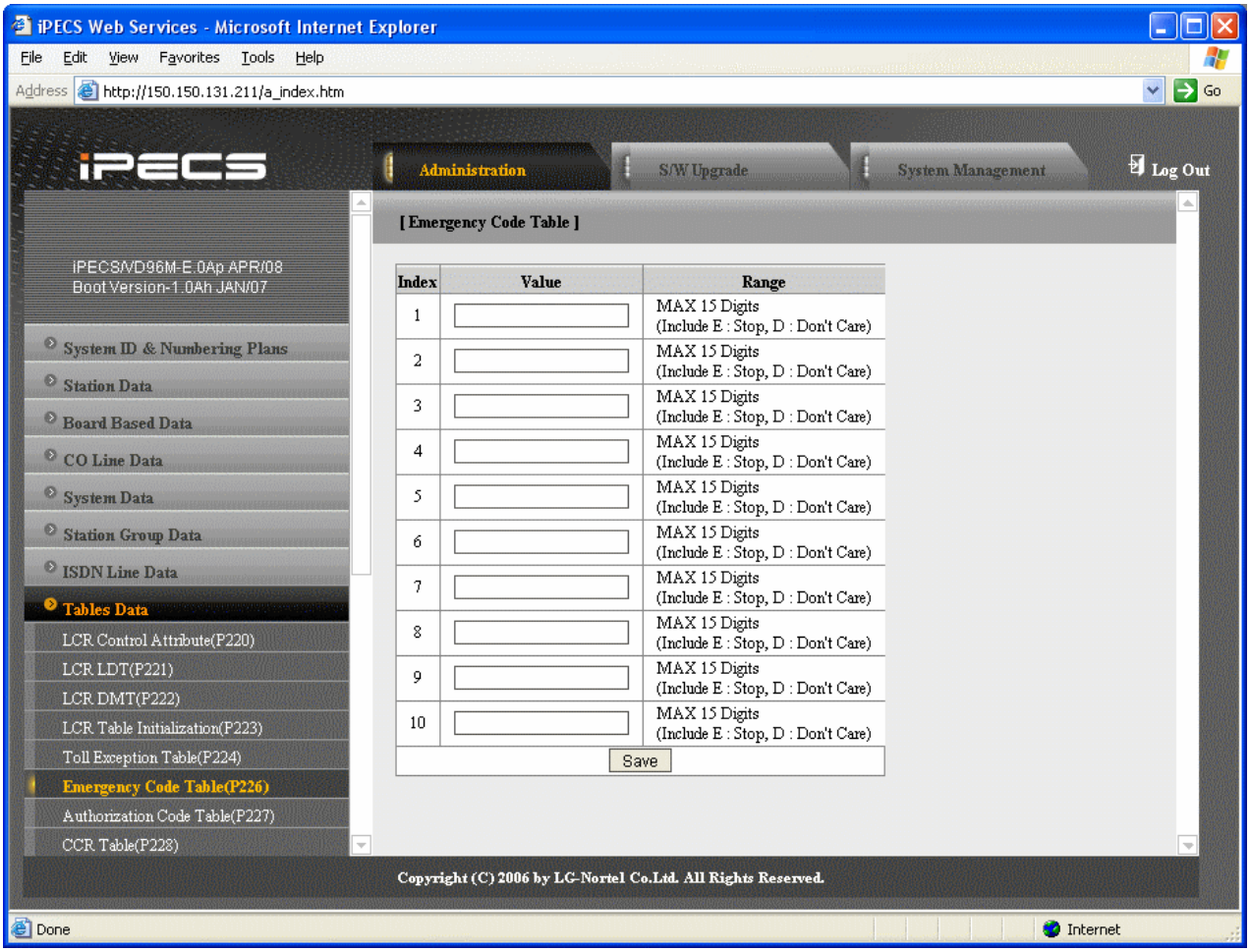


Figure 3.5.8.6-1 Emergency Code Table

The Emergency Code Table is used to identify emergency numbers which, when dialed, will override all COS dialing restrictions. An Emergency Code number may be up to fifteen (15) digits in length.

3.5.8.7 Authorization Code Table

Re: **PGM CODE** 227

Selecting Authorization Code Table will display the Authorization Code Table data entry page, Figure 3.5.8.7-1. Select the desired range [Station] or [System] choices above the table header.

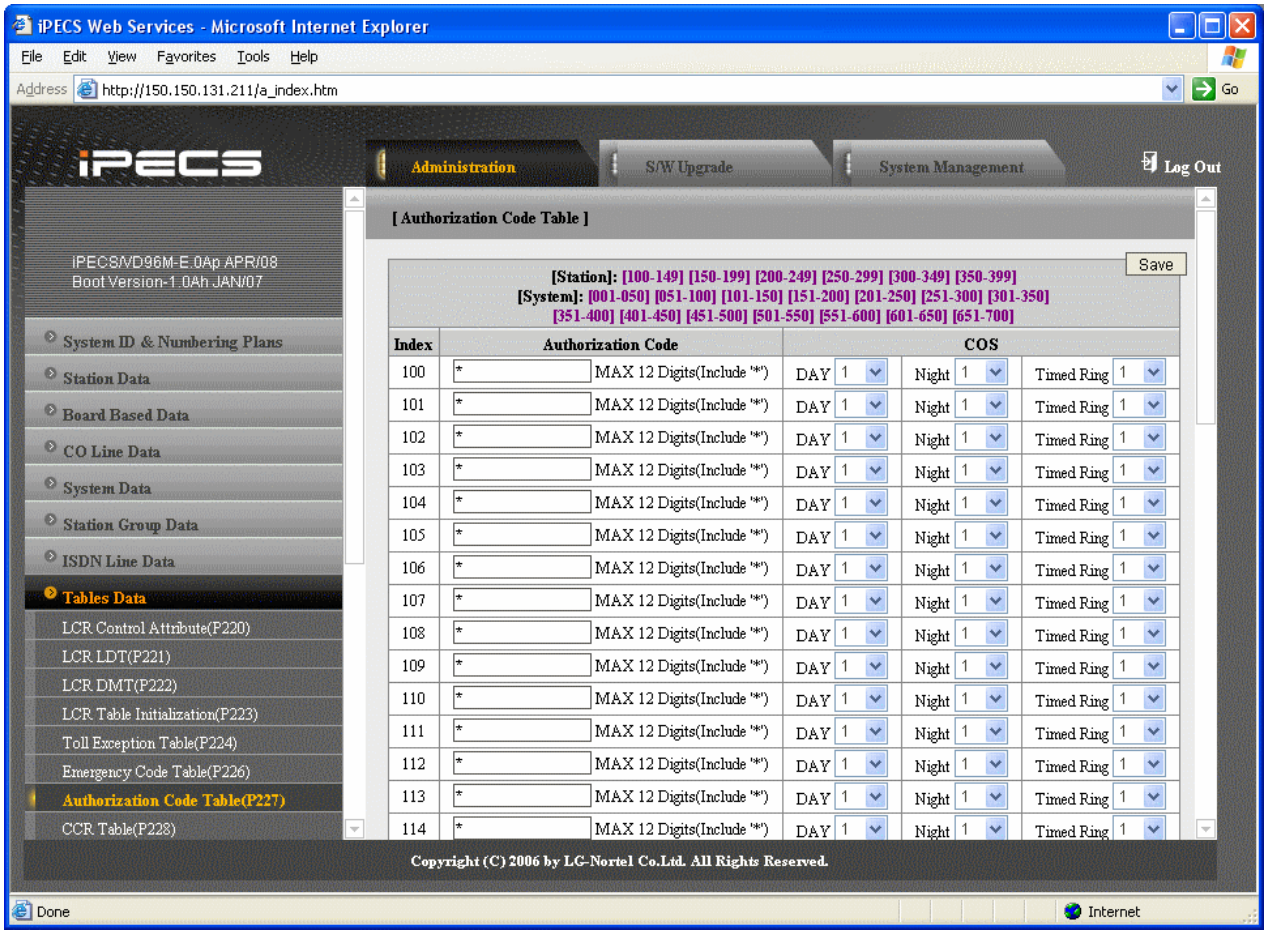


Figure 3.5.8.7-1 Authorization Code Table

Authorization codes are employed to control access to system resources and facilities. Walking COS, CO/IP Group access, DISA calls and certain Call Forward types may require input of a valid Authorization code. Codes up to 12 digits may be entered into the system database. There are two types of Authorization codes, station and system. The Station entries are associated with individual stations. The number of system Authorization codes varies based on the configuration; the number of available codes is provided in Table 1.1-1. Each Authorization code may be assigned a separate COS for Day, Night and Timed Ring mode operation.

The system will allow the station associated Authorization codes to be duplicated. However, the iPECS will not allow duplicate or conflicting system level codes unless the '*' and Authorization table indexing is used to enter codes. Conflicting codes occur when a shorter code contains the first digits of a longer code, i.e. 12 conflicts with 1234.

3.5.8.8 Customer Call Routing Table

Re: **PGM CODE** 228

Selecting CCR Table will display the Customer Call Routing data entry page, Figure 3.5.8.8-1.

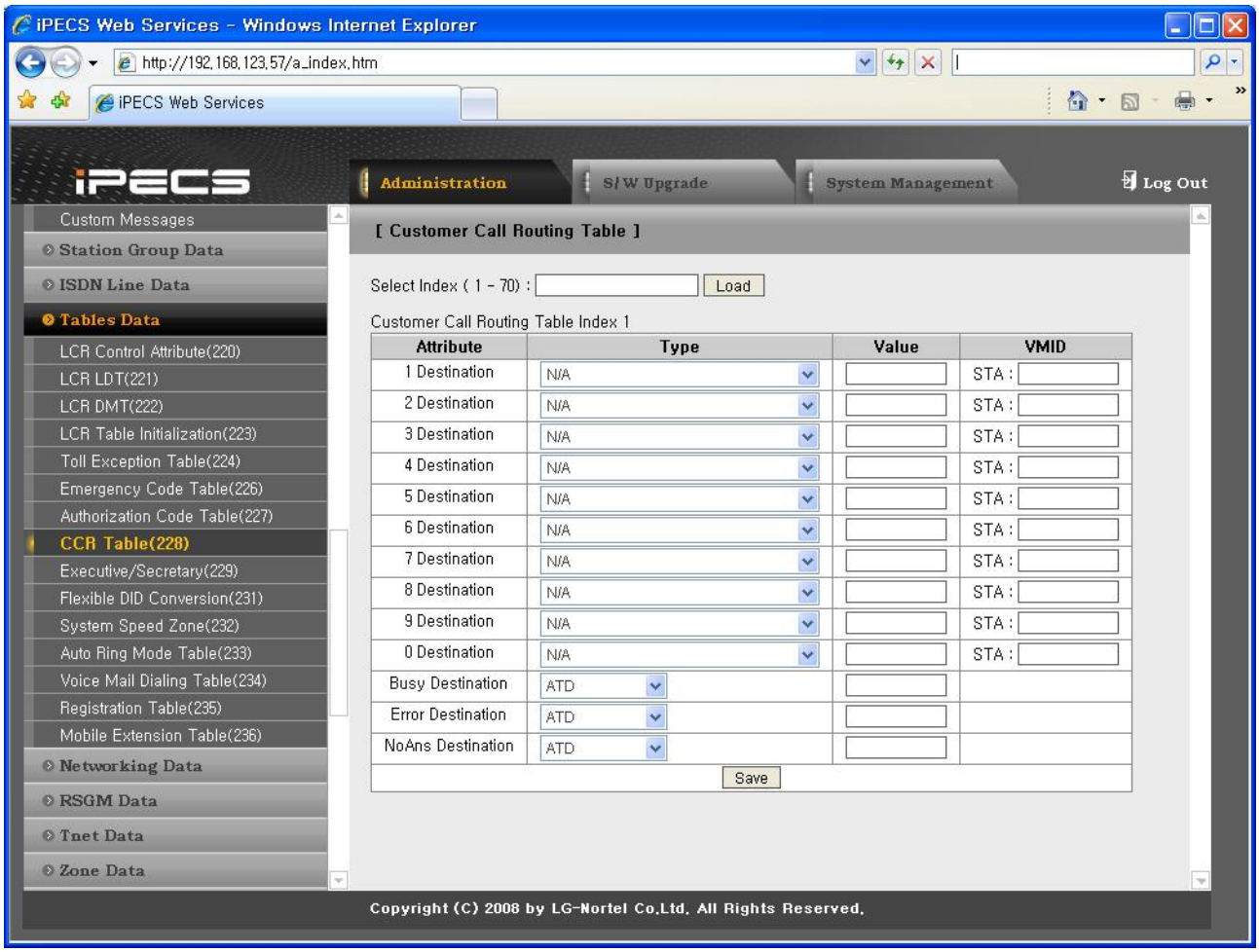


Figure 3.5.8.8-1 Customer Call Routing Table

The system incorporates IVR (Interactive Voice Response) capabilities called CCR (Customer Call Routing). After, or during a VSF Announcement, the caller may dial digits to select a destination or route for the call. The CCR Table defines the destination type and value associated with the digit dialed by the caller in response to the index, a VSF Announcement (01-70). Up to 70 single-level Audio Text menus may be assigned or, multi-level menu structures (maximum 70 levels) can be established using one menu as a destination for the previous level.

Table 3.5.8.8-1 describes the various destination types and allowable value entries.

Table 3.5.8.8-1 CUSTOMER CALL ROUTING DESTINATIONS

DESTINATION	VALUE RANGE					
TYPE	**iPECS-Micro**	**iPECS-50**	**MFIM100**	**MFIM300**	**MFIM600**	**MFIM1200**
Route to a Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
Route to a Station Group	620~631	620~659	620~659	620~667	620~667	401~500
Route with System Speed Dial	200~999	200~999	200~999	2000~4999	2000~7999	**20000~31999**
Route as PBX Transfer with System Speed Dial (Flash then dial speed dial digits)	200~999	200~999	200~999	2000~4999	2000~7999	**20000~31999**
Route to VSF Announcement	01~70	01~70	01~70	01~70	01~70	01~70
Route to VSF Announcement and disconnect	01~70	01~70	01~70	01~70	01~70	01~70
Route to Networked Station.	~(100~125)	~(100~149)	~(100~169)	~(100~399)	~(1000~1599)	~(1000~2199)
Conference Room	1-9	1-9	1-9	1-9	1-9	1-9
Internal Page	01-10	01-10	01-10	01-35	01-35	01-100
External page	n/a	01-02	01-02	01-02	01-02	01-02
All Call Page	01(internal) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)	01(internal) 02(external) 03(all)
Route to voice mail(station group/station number)	620~631/ 100~125	620~659/ 100~149	620~659/ 100~169	620~667/ 100~399	620~667/ 1000~1599	401~500/ 1000~2199

3.5.8.9 Executive/Secretary Table

Re: **PGM CODE** 229

Selecting Executive/Secretary will display the Executive/Secretary Table data entry page, Figure 3.5.8.9-1.

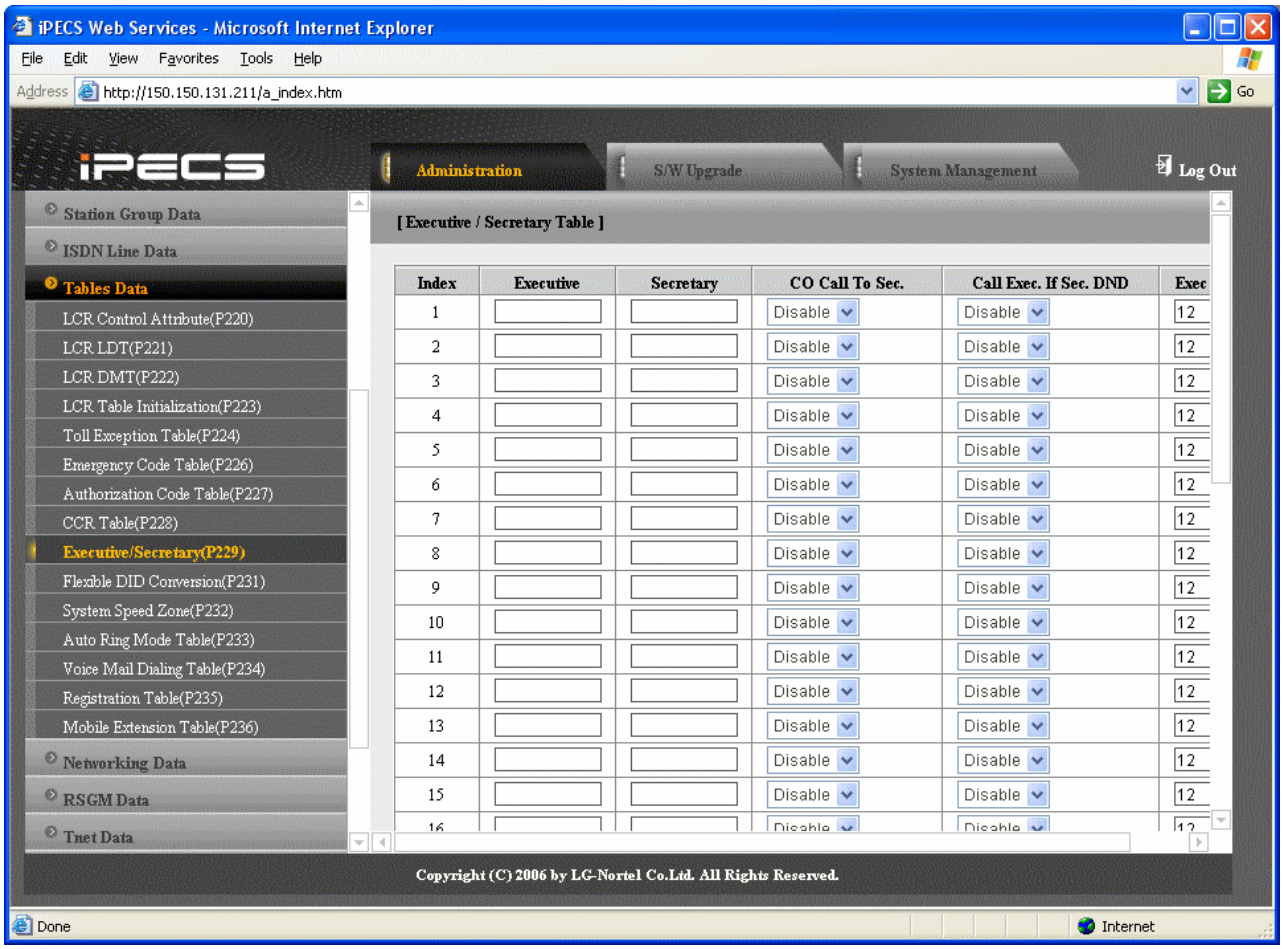


Figure 3.5.8.9-1 Executive/Secretary Table

Stations can be paired as Executive/Secretary pairs so that when the Executive enters DND, intercom and transferred calls are automatically routed to the Secretary. Up to 10 Executive/Secretary pairs can be defined for the iPECS with an iPECS-Micro, iPECS-50 or MFIM100 and up to 36 for the iPECS with other MFIM models. An Executive may have only one Secretary however, a Secretary can be assigned to multiple Executives. A Secretary of one pair may be the Executive of another however, assignments that form a loop-back are not allowed. In addition, when active, the Secretary can be assigned to receive the Executive's voice messages, refer to Station Attributes section 3.5.2.2.

The "CO Call to Sec" option will route all CO calls to the Executive to the defined Secretary's station regardless of the Executive's station status. The "Call Exec if Sec DND" option will route Executive calls back to the Executive if the Secretary is in DND. The Exec Grade permits higher grade Executives to override the Executive/Secretary Forward feature to call a lower grade Executive (Korea only). The highest grade is 1 and the lowest grade is 12.
The "Icm Call to Sec" option will route all internal calls to the Executive(excecpt for calls from higher or same grade executive) to the defined Secretary's station regardless of the Executive's station status.

3.5.8.10 Flexible DID Conversion Table

Re: **PGM CODE** 231

Selecting Flexible DID Conversion Table will display the Flexible DID Table data entry page, Figure 3.5.8.10-1.

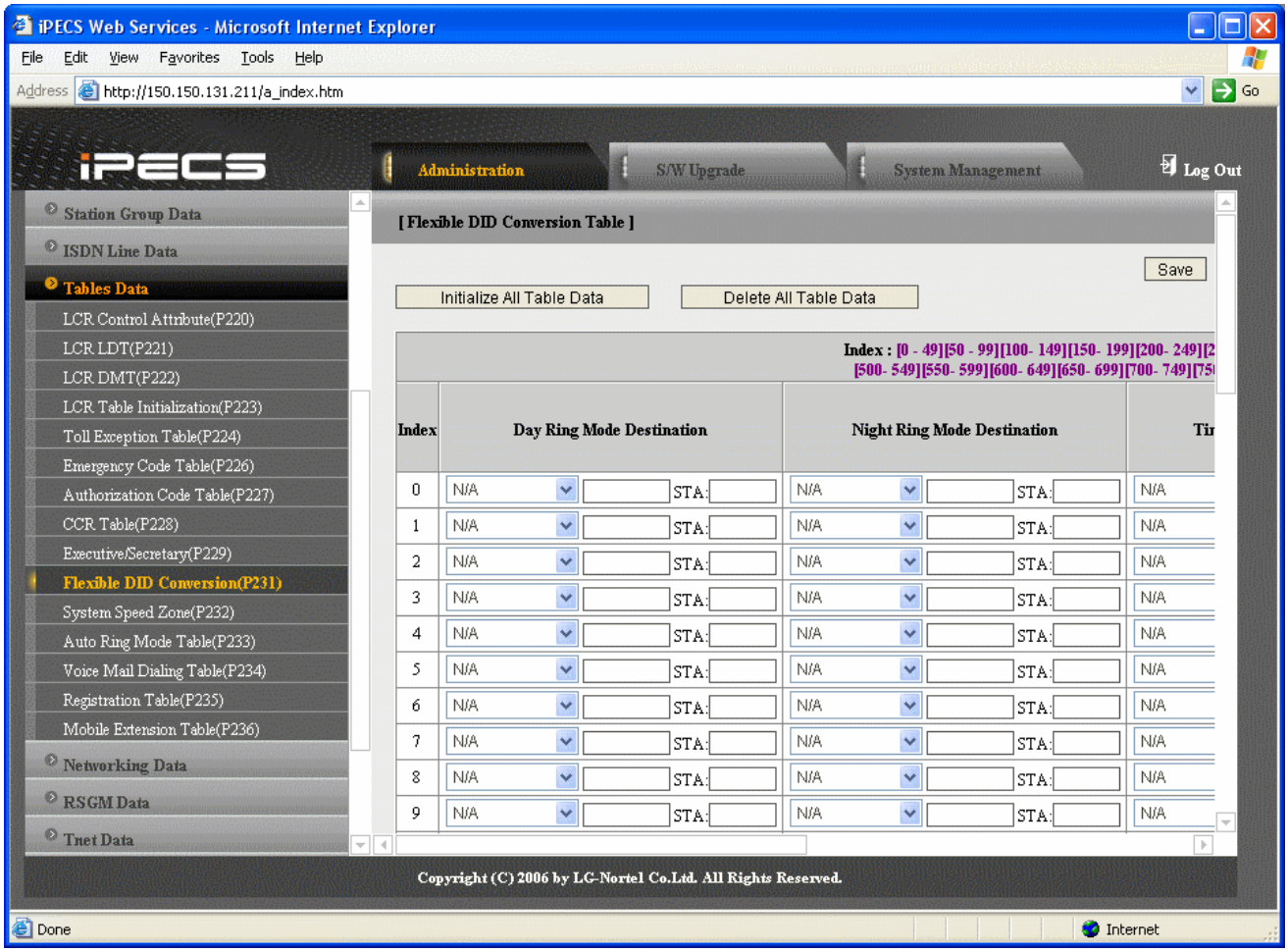


Figure 3.5.8.10-1 Flexible DID Conversion Table

When the received DID digits are converted, the resulting three-digit number may be used as an index to the Flexible DID Conversion Table. The Flexible DID Table index is used when the DID Line is assigned a Conversion type 2, refer to the DID Service attributes section 3.5.4.3. Using the index from the digit conversion a destination for the DID call is determined by a Look-up in the Flexible DID Table. The destination for the call is generally defined as a type and a value. The type selects options such as station, station group, VSF, etc. The value specifies the particular station, station group, etc. In addition, ICLID routing can be enabled for DID lines or can be assigned as an index to the Auto Ring Mode table.

Table 3.5.8.10-1 FLEXIBLE DID CONVERSION

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Name	Name associated with the destination.	11 characters	

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Day Ring Mode Destination	Destination setting for Day Ring mode.	Type & Value	
Night Ring Mode Destination	Destination setting for Night Ring mode.	Type & Value	
Timed Ring Mode Destination	Destination setting for Timed Ring mode	Type & Value	
Reroute Destination	Destination setting for Reroute Ring mode	Type & Value	
ICLID Table	Use ICLID Routing, section 3.5.7.4	ON/OFF	OFF
Auto Ring Table	Destination	Table Index (0 ~ 15)	N/A

Table 3.5.8.10-2 FLEXIBLE DID DESTINATION

TYPE	DESCRIPTION	DESTINATION					
		iPECS		MFIM			
		Micro	50	100	300	600	1200
1	Route to a Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
2	Route to a Station Group	620~631	620~659	620~659	620~667	620~667	401~500
3	Route with System Speed Dial	200~999	200~999	200~999	2000~4999	2000~7999	20000~31999
4	Route as PBX Transfer with System Speed Dial (Flash then dial speed dial digits)	200~999	200~999	200~999	2000~4999	2000~7999	20000~31999
5	Route to VSF AA Announcement	01~70	01~70	01~70	01~70	01~70	01~20
6	Route to VSF AA Announcement and disconnect	01~70	01~70	01~70	01~70	01~70	01~20
7	Route to a Networking Station	~(100~125)	~(100~149)	~(100~169)	~(100~399)	~(1000~1599)	~(1000~2199)
8	Conference Room	1-9	1-9	1-9	1-9	1-9	1-9
9	Internal Page	01-10	01-10	01-10	01-35	01-35	01-100
10	External page	n/a	01-02	01-02	01-02	01-02	01-02
11	All Call Page	01(internal) 03(all)	01(internal) 02(external) 03 (all)	01(internal) 02(external) 03 (all)	01(internal) 02 (external) 03 (all)	01(internal) 02 (external) 03 (all)	01(internal) 02 (external) 03 (all)
12	Voice Mail Box Group	620~631	620~659	620~659	620~667	620~667	401~500
	Voice Mail Box Station	100~125	100~149	100~169	100~399	1000~1599	1000~2199
13	ICLID Ring Assignment Table	001~250	001-250	001-250	001-250	001-250	001-250

3.5.8.11 System Speed Zone Table

Re: **PGM CODE** 232

Selecting System Speed Zone will display the System Speed Zone data entry page, Figure 3.5.8.11-1.

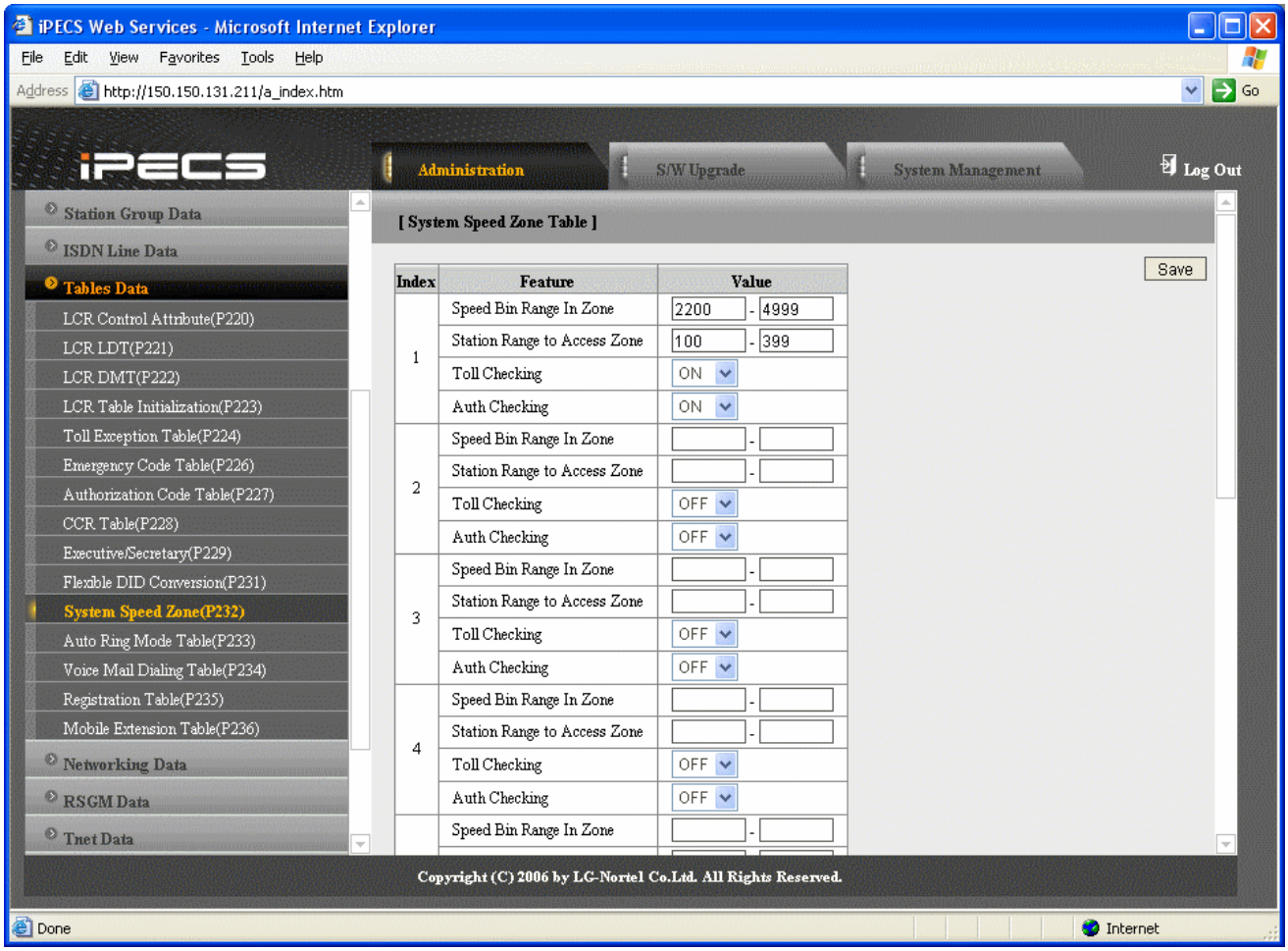


Figure 3.5.8.11-1 System Speed Zone

The system has 10 System Speed Dial zones except MFIM600, which has twenty (20) and MFIM1200,which has fifty(50). System Speed Dial Bins assigned to a zone are only available to stations allowed access to that zone. Each zone can be assigned to apply the appropriate Station and CO Line COS for the speed dial number prior to dialing.

3.5.8.12 Auto Ring Mode Table

Re: **PGM CODE** 233

Selecting Auto Ring Mode Table will display the Auto Ring Mode Table data entry page, Figure 3.5.8.12-1.

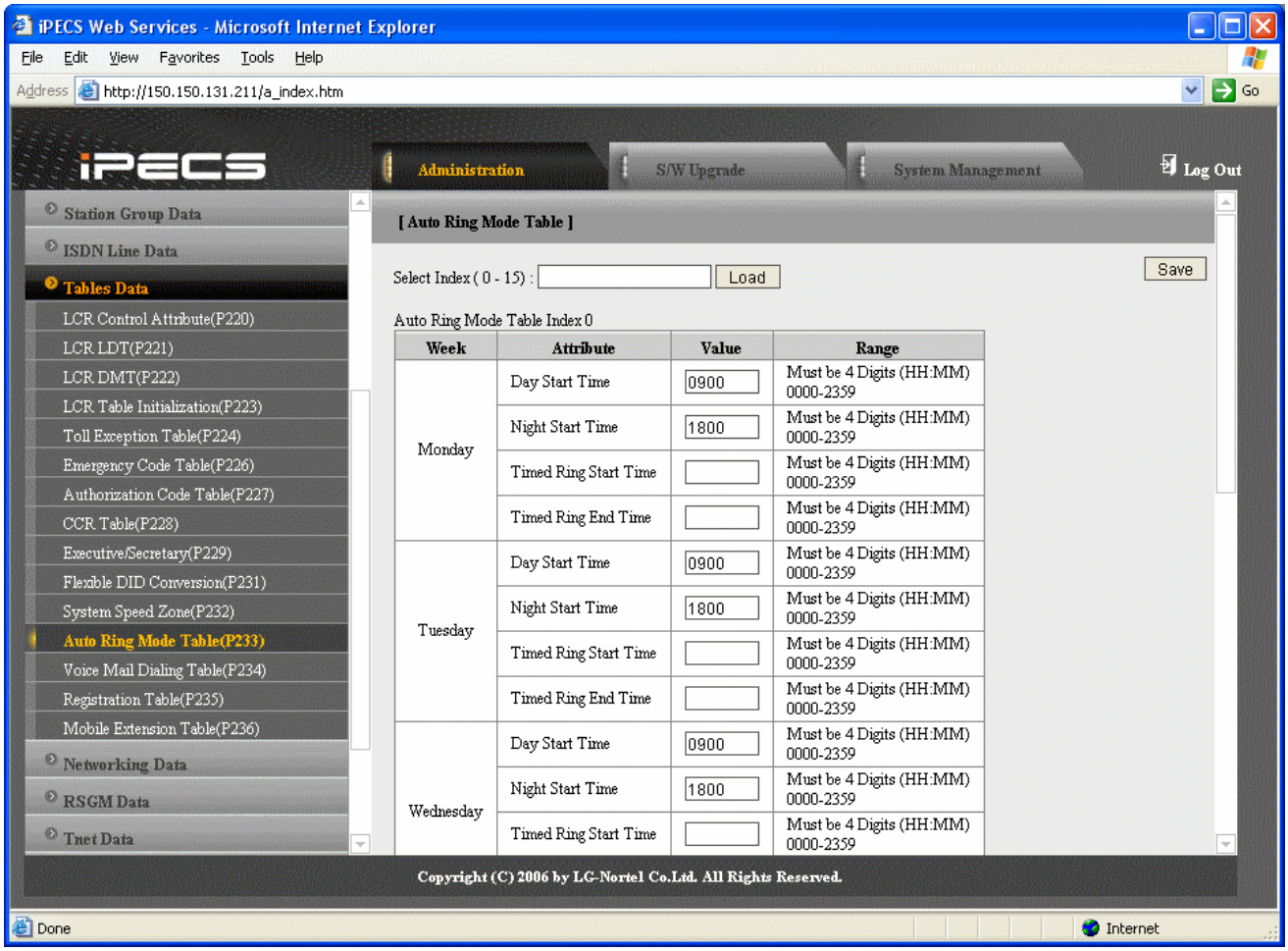

iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
Go
iPECS
Administration
S/W Upgrade
System Management
Log Out
Station Group Data
ISDN Line Data
Tables Data
LCR Control Attribute(P220)
LCR LDT(P221)
LCR DMT(P222)
LCR Table Initialization(P223)
Toll Exception Table(P224)
Emergency Code Table(P226)
Authorization Code Table(P227)
CCR Table(P228)
Executive/Secretary(P229)
Flexible DID Conversion(P231)
System Speed Zone(P232)
Auto Ring Mode Table(P233)
Voice Mail Dialing Table(P234)
Registration Table(P235)
Mobile Extension Table(P236)
Networking Data
RSGM Data
Tnet Data
[Auto Ring Mode Table]
Select Index (0 - 15) :
Load
Save
Auto Ring Mode Table Index 0
Week
Attribute
Value
Range
Monday
Day Start Time 0900 Must be 4 Digits (HH:MM) 0000-2359
Night Start Time 1800 Must be 4 Digits (HH:MM) 0000-2359
Timed Ring Start Time Must be 4 Digits (HH:MM) 0000-2359
Timed Ring End Time Must be 4 Digits (HH:MM) 0000-2359
Tuesday
Day Start Time 0900 Must be 4 Digits (HH:MM) 0000-2359
Night Start Time 1800 Must be 4 Digits (HH:MM) 0000-2359
Timed Ring Start Time Must be 4 Digits (HH:MM) 0000-2359
Timed Ring End Time Must be 4 Digits (HH:MM) 0000-2359
Wednesday
Day Start Time 0900 Must be 4 Digits (HH:MM) 0000-2359
Night Start Time 1800 Must be 4 Digits (HH:MM) 0000-2359
Timed Ring Start Time Must be 4 Digits (HH:MM) 0000-2359
Copyright (C) 2006 by LG-Nortel Co.Ltd. All Rights Reserved.
Done
Internet

Figure 3.5.8.12-1 Auto Ring Mode Table

The system can be programmed to automatically select the Ring and COS based on time of day and day of week. Three Ring & COS modes are available, Day, Timed and Night. The Ring assignments are as defined in CO Ring Assignments, section 3.5.4.2. COS assignments are made in Station COS and DISA COS programs in section 3.5.2.5 and 3.5.5.6, respectively.

The start times for Day, Night and start and end times for Timed modes are entered for each day of week. After the Timed end time the mode returns to day if time is not in the Night mode. The Attendant can override the Automatic selection and select the desired mode (Day, Night, and Timed) manually. A separate Auto Ring Table can be established for each ICM Tenant Group in section 3.5.2.14 (indices 1 ~ 15) and for the system (index 00).

3.5.8.13 Voice Mail Dialing Table

Re: **PGM CODE** 234

Selecting Voice Mail Dialing Table will display the Voice Mail Dialing data entry page, Figure 3.5.8.13-1.

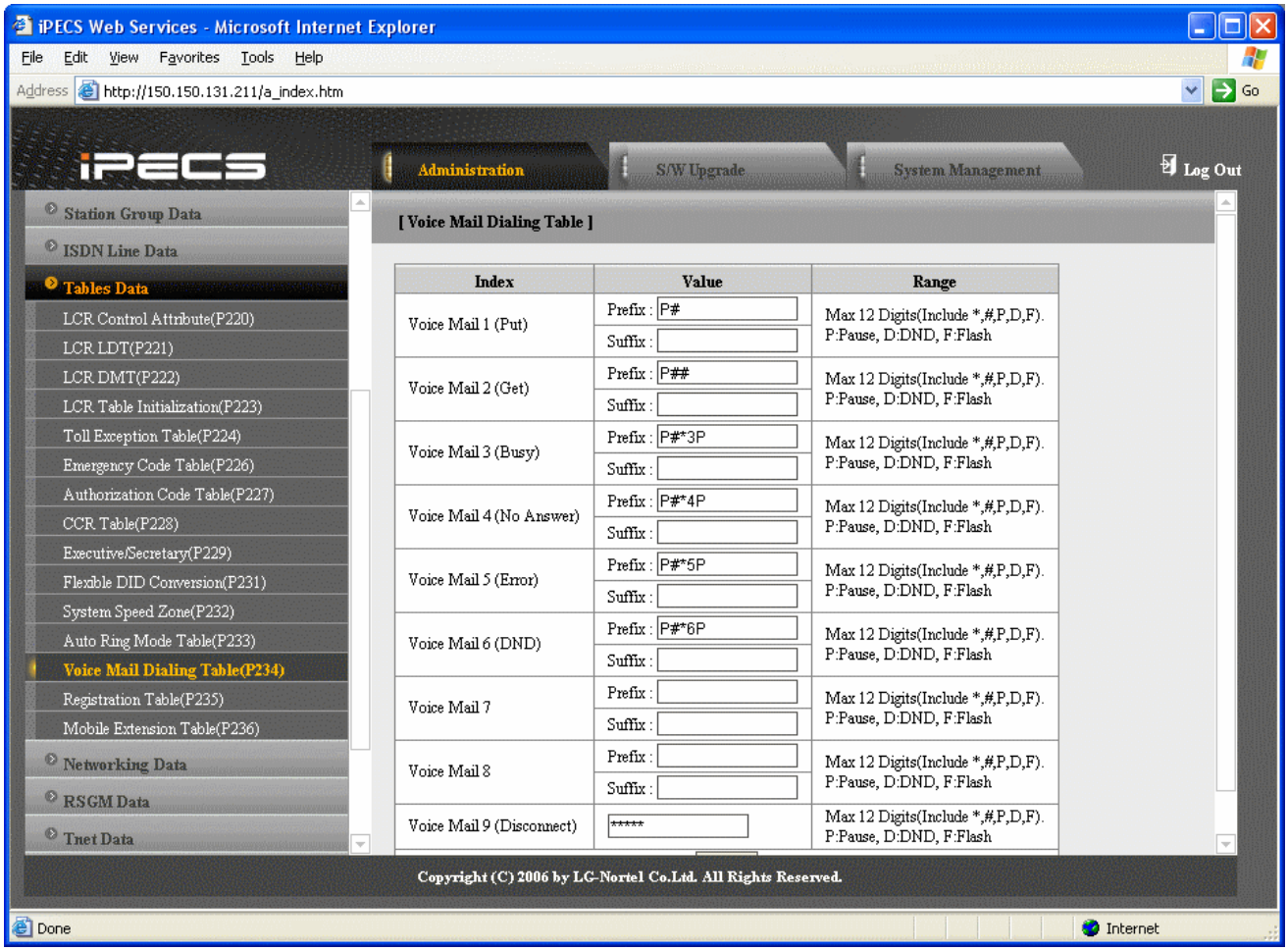


Figure 3.5.8.13-1 External Voice Mail Dialing Table

When an external Voice Mail system is used that connects to an SLT port, a digit sequence must be defined for the system to signal various call characteristics to the Voice Mail system. The external Voice Mail uses the sequences to determine appropriate announcements or further call routing. The Table permits the definition of digits as either a prefix or suffix to other digits (station number for mailbox identification). Sequences are defined for such call characteristics as Put Mail, Get Mail, No Answer call, etc. as described in Table 3.5.8.13-1.

Table 3.5.8.13-1 VOICE MAIL DIAL FUNCTIONS

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VM Table 1 (Put Mail)	Code to send when the voice mail is to receive call to record a message. Put Mail	Prefix Suffix Any digits	P#

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
VM Table 2 (Get Mail)	Code to send when the voice mail is to playback a recorded message. Get Mail	Prefix Suffix Any digits	P##
VM Table 3 (Busy Table)	Code to send when the voice mail is to receive a call when the user is busy. Busy Mail	Prefix Suffix Any digits	P#*3P
VM Table 4 (No Answer)	Code to send when the voice mail is to receive a call when the user did not answer. No Answer Mail	Prefix Suffix Any digits	P#*4P
VM Table 5 (Error)	Code to send when the voice mail is to receive a call when a user dialing error exists. Error Mail	Prefix Suffix Any digits	P#*5P
VM Table 6 (DND)	Code to send when the voice mail is to receive a call when the user is in DND. DND Mail	Prefix Suffix Any digits	P#*6P
VM Table 7		Prefix Suffix Any digits	
VM Table 8		Prefix Suffix Any digits	
VM Table 9 (Disconnect Table)	Code for disconnect call. Disconnect Mail	Prefix Suffix Any digits	*****

3.5.8.14 Registration Table & Fractional Module Table

Re: **PGM CODE** 235

Selecting Registration Table will display the Registration data entry page, Figure 3.5.8.14-1.

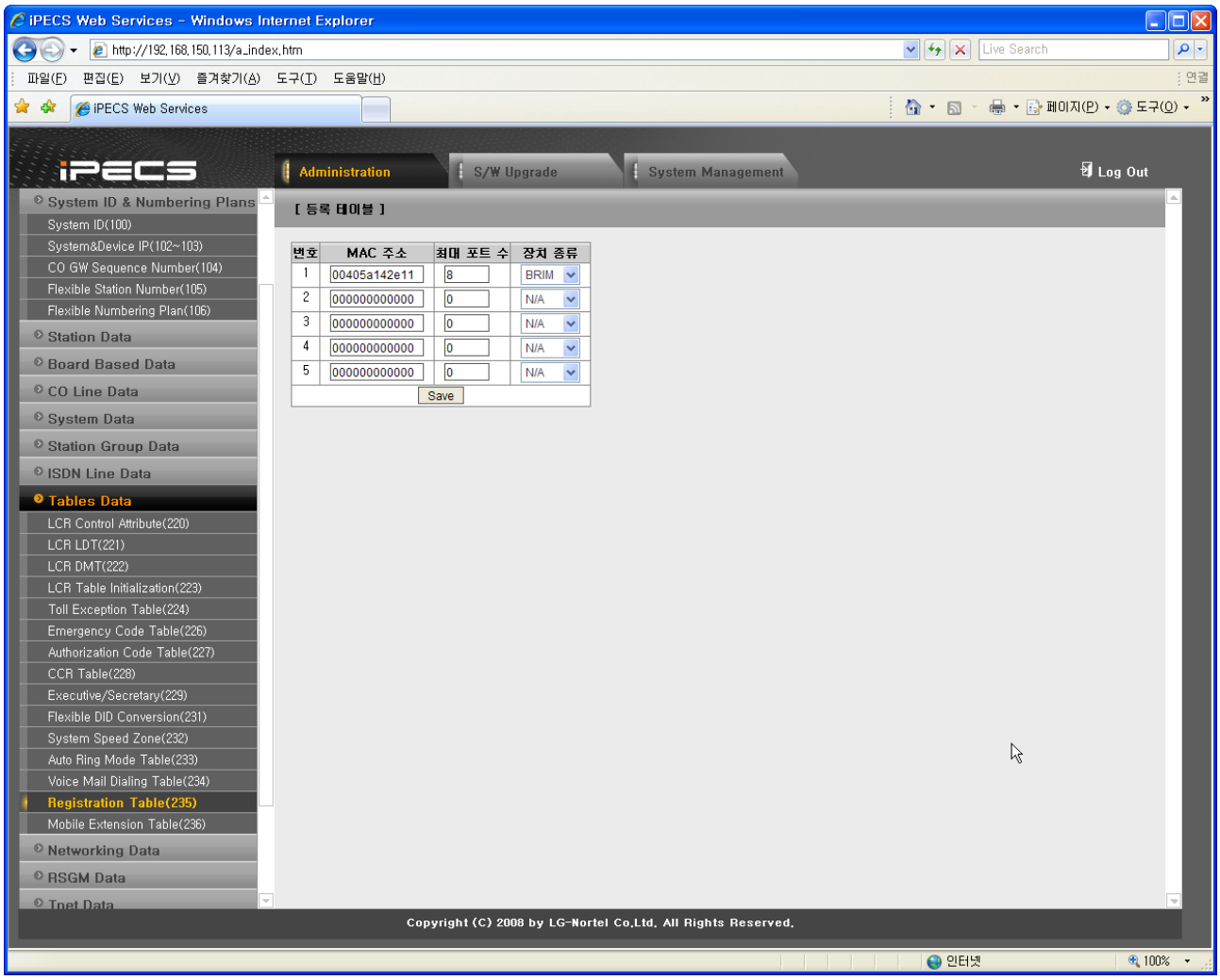


Figure 3.5.8.14-1 MAC Registration Table

When multiple iPECS systems are located on the same LAN, it may be desirable to register add-on devices employing the Registration Table. By entering the devices MAC address, the system will allow the device to register regardless of the system Registration switch position, MFIM 3rd DIP-switch. In addition, the number of channels (ports) available to the device can be limited to support functions such as Fractional T1 Lines where only a portion of the channels are needed.

Table 3.5.8.14-1 MAC REGISTRATION & FRACTIONAL MODULE

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
MAC Address	Enter MAC address of a device to register		
MAX Port	Enter maximum number of ports (channels) for the device.	00-99	00
DEV TYPE	Device type for internal gateway	0-6	0

3.5.8.15 Mobile Extension Table

Re: **PGM CODE** 236

Selecting Mobile Extension Table will display the Mobile Extension data entry page, Figure 3.5.8.15-1. Select the Station Order range desired, blue text above the table header. Selecting the blue colored text in the Table header will sort the table based on the selected column.

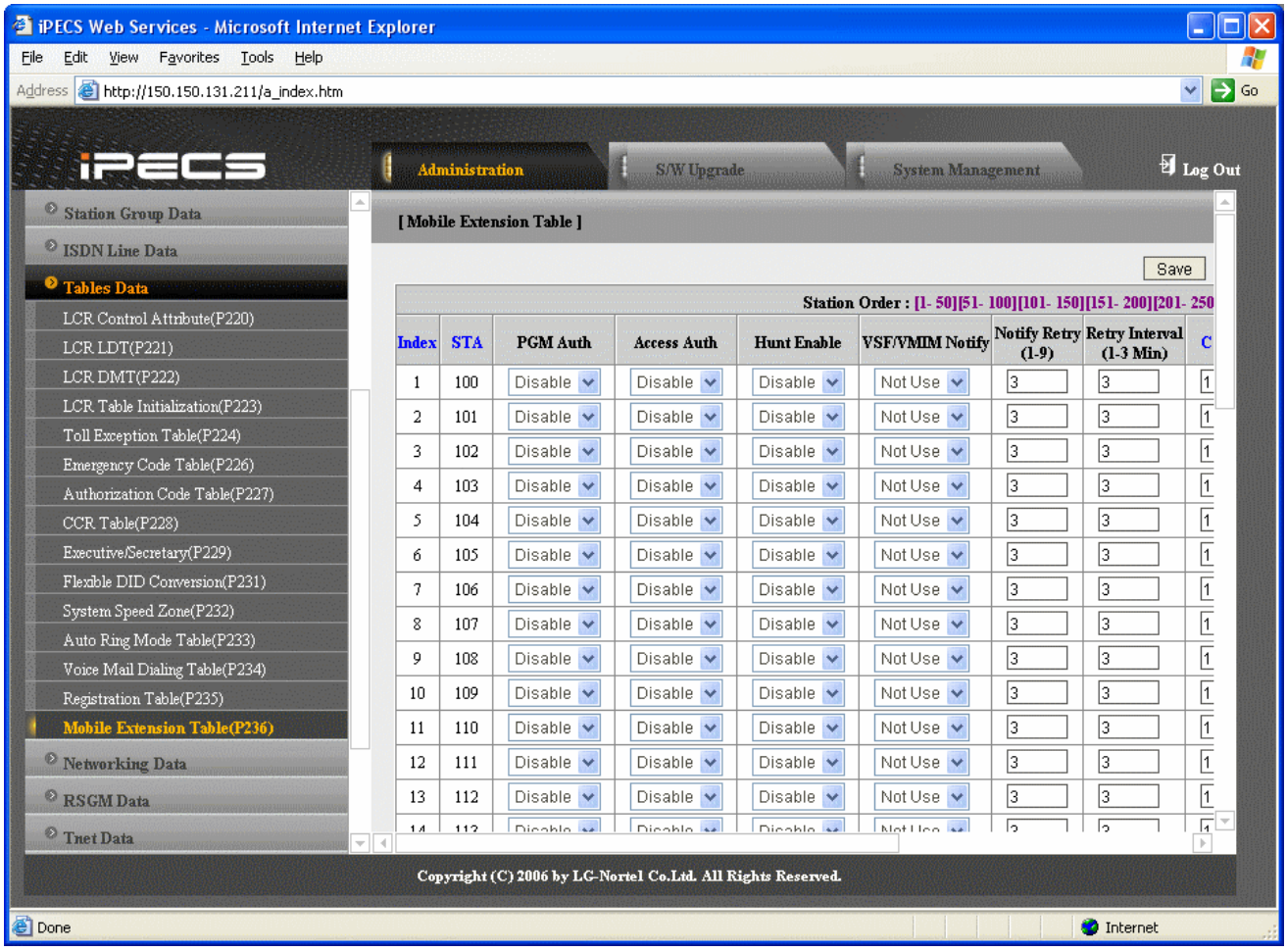


Figure 3.5.8.15-1 Mobile Extension Table

A mobile phone can be used in conjunction with an iPECS Phone. The Mobile phone can access system resources available to the user's wired phone and will receive ring for incoming iPECS calls. The user may be allowed to enable the Mobile extension and define the mobile number. The system can be defined to employ a specific CO/IP Line Group to place calls to the Mobile phone. In addition, the mobile phone can be assigned to receive hunt group calls to the primary extension. Also, parameters for notification of new VSF/VMIM voice mails can be defined.

Table 3.5.8.15-1 MOBILE EXTENSION TABLE

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
PGM Authority	The user may be allowed to activate the mobile extension feature.	Disable/Enable	Disable

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Access Authority	The user can be allowed to register a Mobile phone number.	Disable Enable	Disable
Hunt Enable	When the paired station is a member of a hunt group (ACD, Circular, Ring or Terminal), group calls can be sent to the active mobile extension.	Disable Enable	Disable
VSF/VMIM Notify	Enables outbound notification by the system when the VMIM/VSF has unheard messages.	Not Use Use	Not Use
Notify Retry	Defines the number of attempts the system will make to complete a notification when receiving busy/no-answer.	1 – 9 Times	3 Times
Retry Interval	Defines the time between notification attempts. If a notification fails, the system will retry after the timer expires.	1 – 3 Minute	3 Minute
CO Group	CO group used to call the mobile extension.	00~72or 00~20	01
Telephone Number	Telephone number or CLI of the Mobile extension.		Not assigned
CLI Number	When the mobile Telephone number and CLI do not match, the CLI entered here is used to authorize incoming calls from the mobile.		Not assigned

3.5.9 Networking Data

Selecting the Networking Data program group returns the sub-menu displayed in Figure 3.5.9-1.

Figure 3.5.9-1 Networking Data

3.5.9.1 Network Basic Attributes

Re: **PGM CODE** 320

Selecting Network Basic Attributes will display the Network Basic Attributes entry page, Figure 3.5.9.1-1.

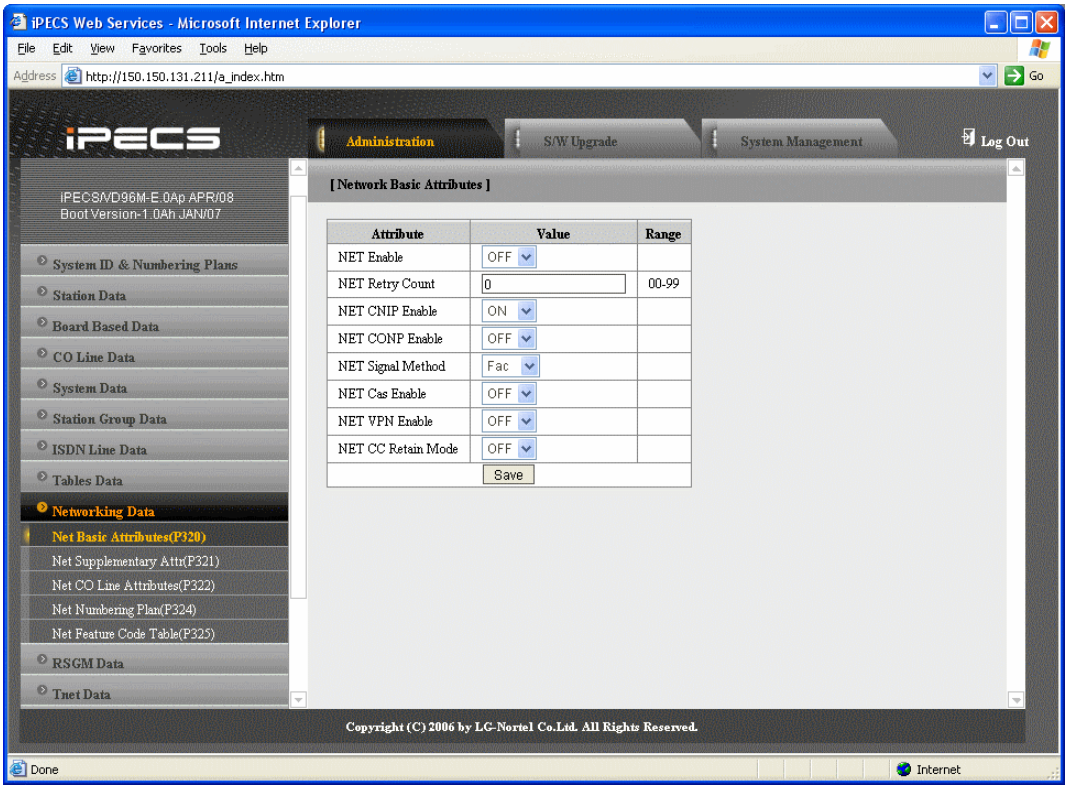


Figure 3.5.9.1-1 Network Basic Attributes

Table 3.5.9.1-1 NETWORK BASIC ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Net Enable	Enable Networking function	1:ON 0:OFF	OFF
Net Retry Count	Reserved for future usage	00-99	00
Net CNIP Enable	The name of calling station is sent to the called system between iPECS systems. CNIP is displayed at called party stations display based on the programming	1:ON 0:OFF	ON
Net CONP Enable	Reserved for future usage	1:ON 0:OFF	OFF
Net Signal Method	Select the information element type for QSIG supplementary service message.	1:FAC 0:UUS	FAC
Net Cas Enable	It is not used.	1:ON 0:OFF	OFF
Net VPN Enable	Reserved for future usage	1:ON 0:OFF	OFF
Net CC Retain Mode	It is not used.	1:ON 0:OFF	OFF

3.5.9.2 Network Supplementary Attributes

Re: **PGM CODE** 321

Selecting Network Supplementary Attributes will display the Network Supplementary Attributes entry page, Figure 3.5.9.2-1.

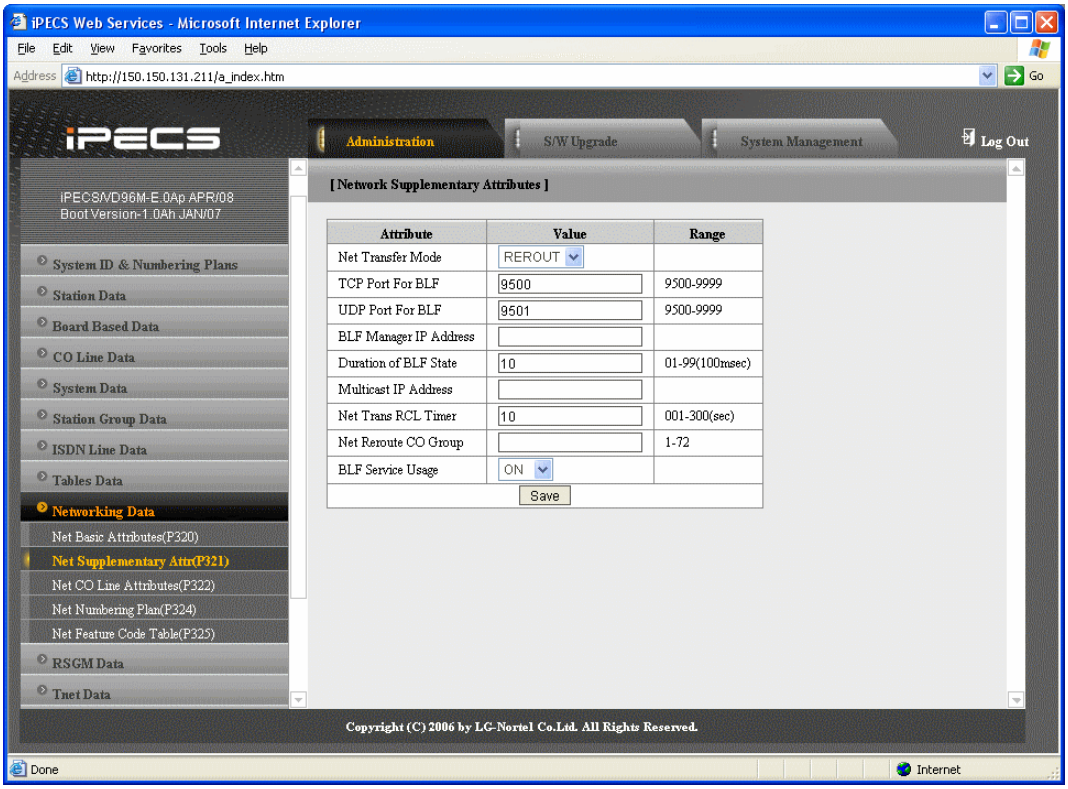


Figure 3.5.9.2-1 Network Supplementary Attributes

Table 3.5.9.2-1 NETWORK SUPPLEMENTARY ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Net Transfer Mode	Select type for Transfer and Call forward – Rerouting or Join	1:RERT 0:JOIN	RERT
TCP Port for Blf	TCP port for sending BLF message to BLF Manager	0000-9999	9500
UDP Port for Blf	UDP port for sending BLF message to BLF Manager	0000-9999	9501
Blf Manager IP	IP Address of BLF Server used only when iPECS is configured with LDK systems for Voice Networking.		0.0.0.0
Duration of BLF Status	Duration of BLF status message sending to BLF Server	01-99 (100 msec)	10
Multicast IP	IP address of Multicast for BLF service		0.0.0.0
Net Trans Rcl timer	Network transfer fault recall timer to be used when no responses from other systems.	001-300 (msec)	10

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
NET Reroute CO Group	The start times for Day, Night and start and end times for Timed modes are entered for each day of week. After Timed end time the mode goes to day if time is less than Night mode.	MFIM & MFIM100:& IPECS-Micro& IPECS-50 00-20 Other MFIM: 00-72	0

3.5.9.3 Network CO Line Attributes

Re: **PGM CODE** 322

Selecting Network CO Line Attributes will display the Network CO Line Group entry page, Figure . Enter the desired data and click Load to display the Network CO Line Group.

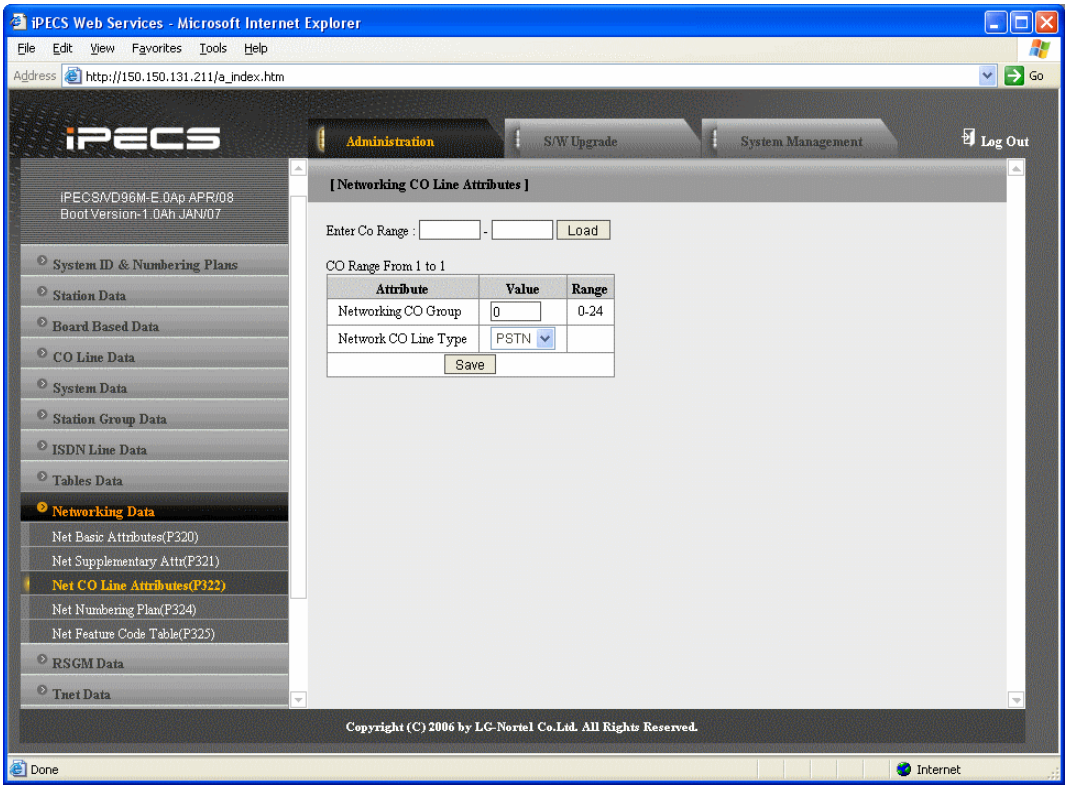


Figure 3.5.9.3-1 Network CO Line Attributes

Table 3.5.9.3-1 NETWORK CO LINE ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Net CO Group	Networking CO group programming for Networking call.	00-24	00
Net CO Line Type	Select network CO Line Type	1:NET 0:PSTN	PSTN

3.5.9.4 Network Numbering Plan Table

Re: **PGM CODE** 324

Selecting Network Numbering Plan Table will display the Network Numbering Plan Table data entry page, Figure 3.5.9.4-1.

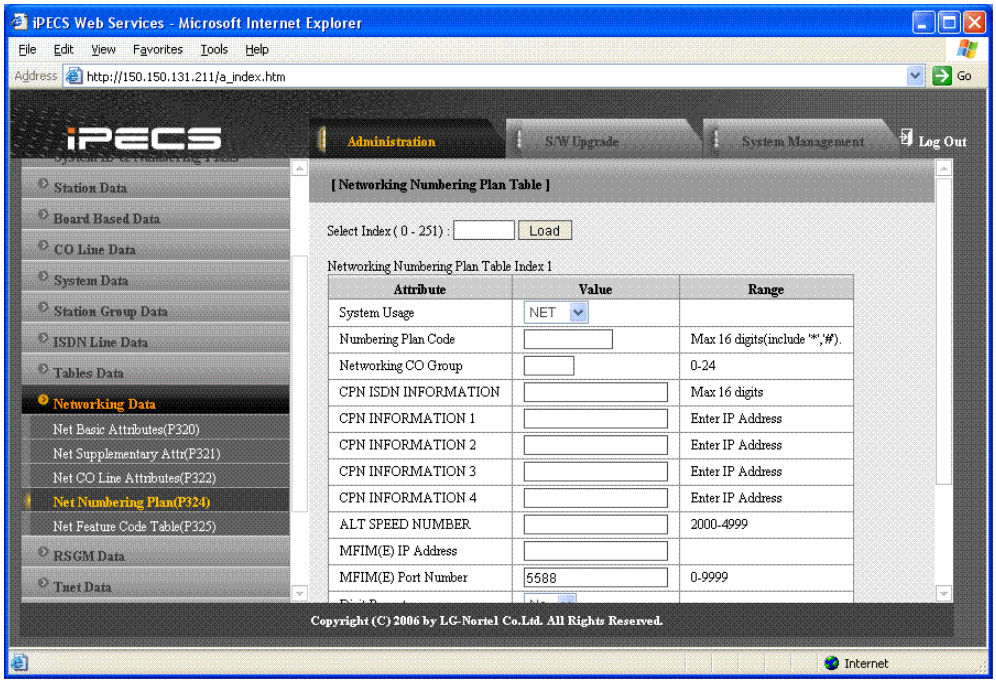


Figure 3.5.9.4-1 Network Numbering Plan Table

Table 3.5.9.4-1 NETWORK NUMBERING PLAN TABLE

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
System Usage	Select system usage	0:NET 1:PSTN	NET
Numbering Plan Code	'*' means any digits can be inserted between 0 ~ 9. The digits followed by '#' is a internal station number	16 digits	
Numbering Plan CO Group	'00' means an internal net station number.	00-24	. .
CPN Information	Flex 1: ISDN CPN INFORMATION Flex 2: (FLEX BTN 1- 4) 1: 00 CPN INFORMATION 01 2: 00 CPN INFORMATION 02 3: 00 CPN INFORMATION 03 4: 00 CPN INFORMATION 04	16 digits	
Alt Speed Bin	Alternative Dial Number (System SPD Bin) when the networking path has a fatal problem.	200-999 or 2000~4999	
MFIM (E) IP Address	IP Address of destination MFIM/E system only when iPECS systems are configured for Voice Networking		0.0.0.0
MFIM(E) Port	Port Number of destination system for Networking.	0000-9999	5588

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Digit Repeat	When the number plan code, see above, is for PSTN call or transit-call, this number code can be enveloped in SETUP message or not whether if this field is set or not.	Yes No	No
Net PSTN Enblock	Choose “Transit-out Public Line” as Enblock or Over-lap.	Yes No	No
CO Attendant Code CLI	Determine whether if Centralized ATD CLI is sent or not when slave system makes transit call.	On Off	Off
Firewall Routing	Select IP address (Firewall IP address or Non-firewall IP address). If the destination system(VOIM) is in same VPN then Non-firewall IP address should be sent. Otherwise the firewall IP address should be sent. ON : Send firewall IP address OFF : Send Non-firewall(Internal) IP address	On Off	ON
Transit Out Auth COS	When there’s a transit out call request from slave system user by seizing CO line, apply COS according to the authorization code.	Yes No	No
SMDR Dgt Hide	Determine to display dialed digit of transit out call or not at the slave system ; it can contain authorization code.	Yes No	No

3.5.9.5 Network Feature Code Table

Re: **PGM CODE** 325

Selecting Network Feature Code Table returns the data entry page, Figure 3.5.9.5-1.

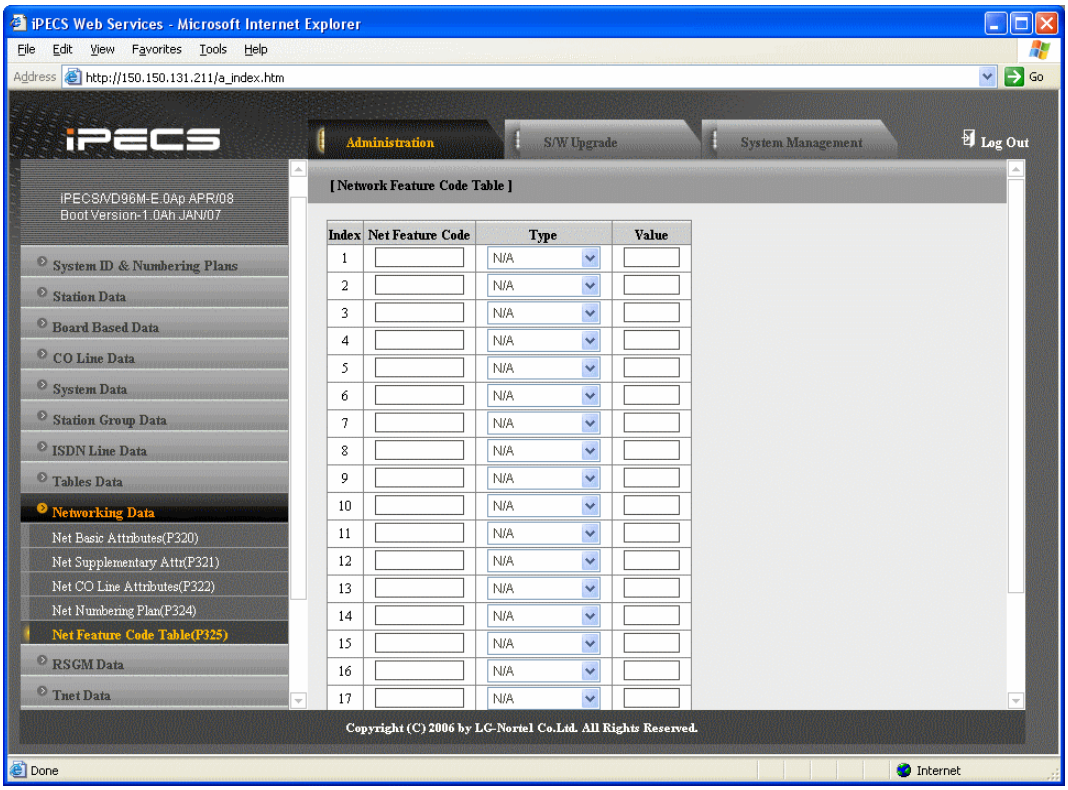


Figure 3.5.9.5-1 Network Feature Code Table

Table 3.5.9.5-1 NETWORK FEATURE CODE TABLE

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Net Feature Code	Networking Feature Code programming for Networking paging call.	16 digits	None
Net Feature Destination	INT PAGE ZONE : MFIM100(1-10), MFIM300/MFIM600/MFIM1200(1-35) EXT PAGE ZONE : (1-2) ALL CALL PAGE ZONE : INT(1), EXT(2), ALL(3)	16 digits	N/A

3.5.10 Remote Device Data

Selecting the Remote Device Data program group returns the sub-menu displayed in Figure 3.5.9.510-1.

Figure 3.5.9.510-1 Remote Device Data

The RSGM (Remote Services Gateway Module) provides a number of local services in addition to transparent access to the host iPECS. The RSGM is intended for use when connected to the iPECS via an unmanaged IP network. The local services include Alarm/Doorbell monitor, BGM/MOH and External Control contacts. For RSGM capacity, refer to Table 1.1-1. The programs in this group allow for configuration of the RSGM identification and attributes for each RSGM unit.

3.5.10.1 Remote Device Address

Re: **PGM CODE** 430

Selecting Remote Device Address will display the Remote Device Table page, Figure 3.5.10.1-1.

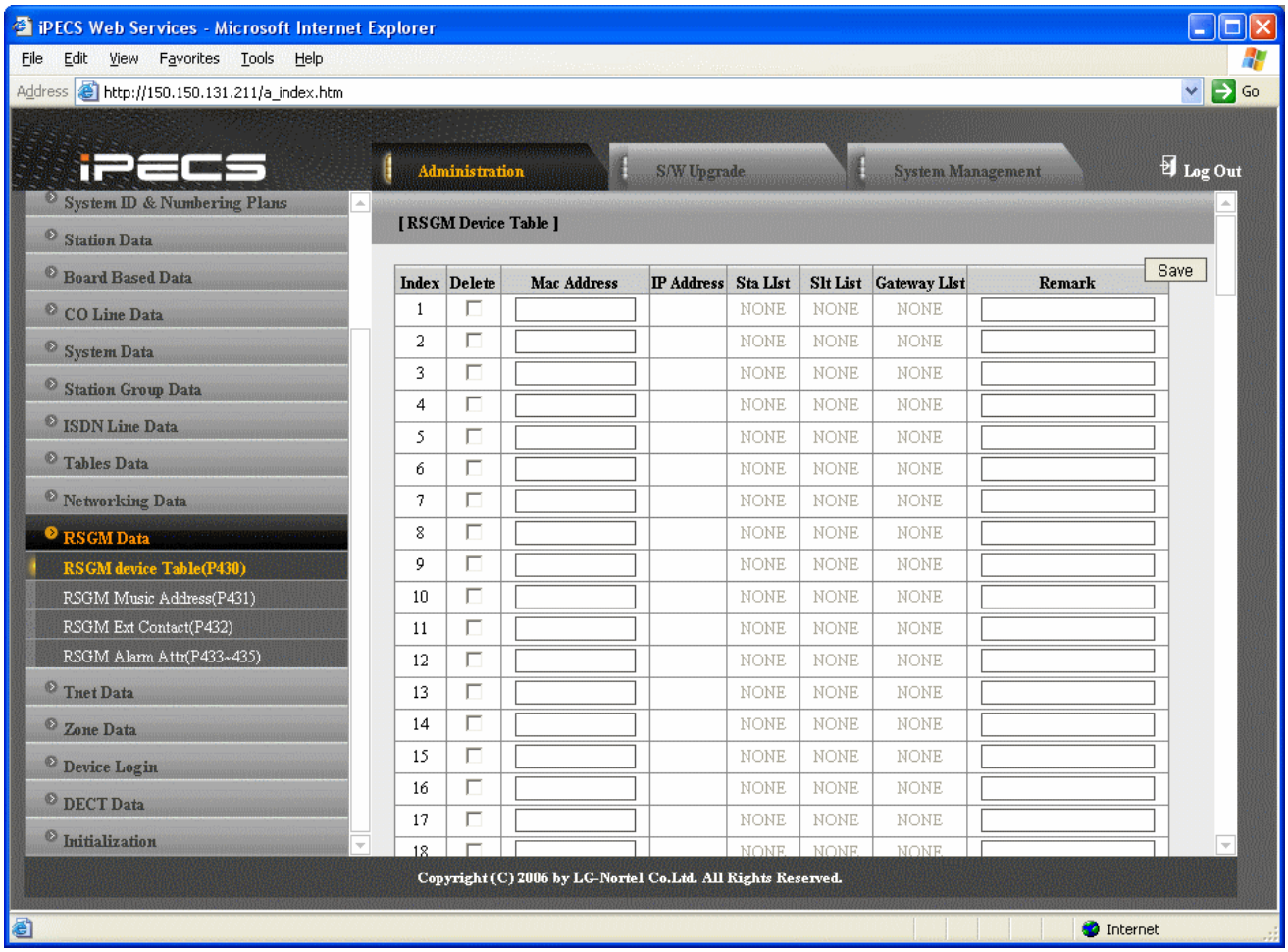


Figure 3.5.10.1-1 Remote Device Table

The Remote Device Table displays characteristics of each registered Remote device. Prior to registration, a MAC must be entered in the Remote Registration Table, section 3.5.13.1, for each remote device including RSGM modules, The registered MAC address can be modified for device replacement.

Table 3.5.10.1-1 REMOTE DEVICE TABLE

ATTRIBUTE	REMARK	RANGE	DEFAULT
Set Mac Address	RSGM/Remote device MAC address for registration.	12 digits	None
IP Address	Display registered RSGM/Remote device IP address	IP Address	None
Station Device List	Display registered RSGM iPECS Phone device list		None
SLT Device list	Display registered RSGM SLT device list		None
Gateway List	Display registered RSGM COL device list		None
Remark			

3.5.10.2 Remote Music Address

Re: **PGM CODE** 431

Selecting Remote Music Address will display the Remote Multicast Address page, Figure 3.5.10.2-1.

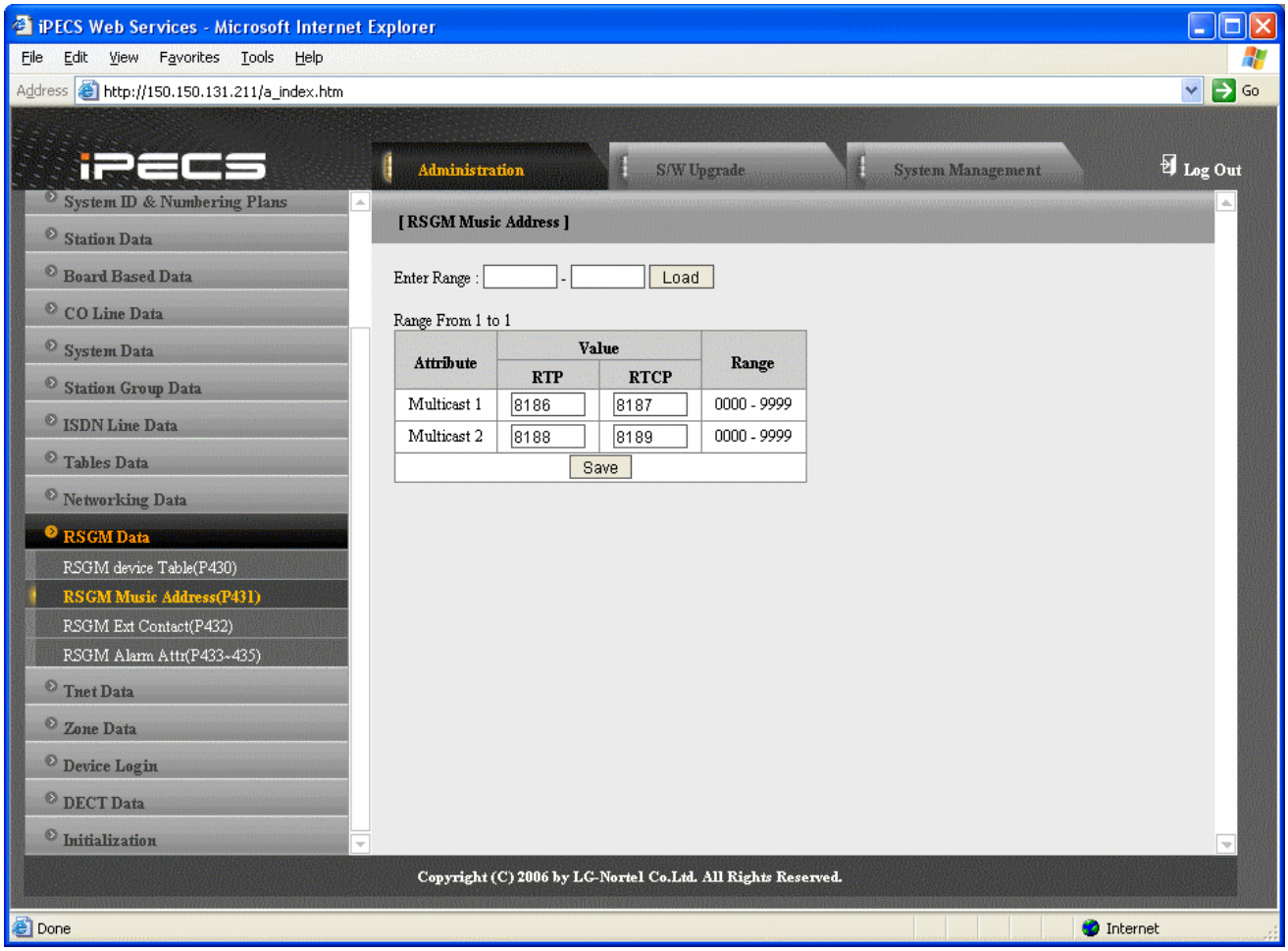


Figure 3.5.10.2-1 RSGM Music Multi-cast Address

The iPECS system does not provide BGM/MOH to an RSGM. The RSGM provides local BGM and MOH to reduce traffic on the WAN and IP channel processors. The RSGM uses multicast for BGM and MOH transport. There are two sources, an internal tone source or an external source may be connected. Separate UDP port numbers are defined for RTP and RTCP packets for each source.

Table 3.5.10.2-1 RSGM MULTICAST ADDRESS

ATTRIBUTE	REMARK	RANGE	DEFAULT
Multicast RTP BGM1	Enter desired data (4 digits). Port numbers cannot be duplicated.	4 digits	8186
Multicast RTP BGM2	Enter desired data (4 digits). Port numbers cannot be duplicated.	4 digits	8188
Multicast RTCP BGM1	Enter desired data (4 digits). Port numbers cannot be duplicated.	4 digits	8187
Multicast RTCP BGM 2	Enter desired data (4 digits). Port numbers cannot be duplicated.	4 digits	8189

3.5.10.3 Remote Ext Contact

Re: **PGM CODE** 432

Selecting Remote Ext Contact will display the RSGM Ext Contact page, Figure 3.5.10.3-1.

Figure 3.5.10.3-1 Remote Ext Contact

The RSGM incorporates a relay contact, which can be employed to control an external device. The contact is assigned to activate under one of several conditions. As a Loud Bell Contact (LBC), the contact will activate when the RSGM station receives an external call. The contact may alternatively activate as a Door Lock Release contact, activating when the Door Unlock code is dialed by the RSGM station.

Table 3.5.10.3-1 REMOTE EXTERNAL CONTACT

ATTRIBUTE	REMARK	RANGE	DEFAULT
Ext Contact	The RSGM External Contacts can be assigned for the Door Lock Release function.	Not Use Door Open	

3.5.10.4 RSGM Alarm Attributes

Re: **PGM CODE** 433~435

Selecting Remote Alarm Attr will display the RSGM Alarm Attributes, Music Assignments and the CO/IP Group page, Figure 3.5.10.4-1.

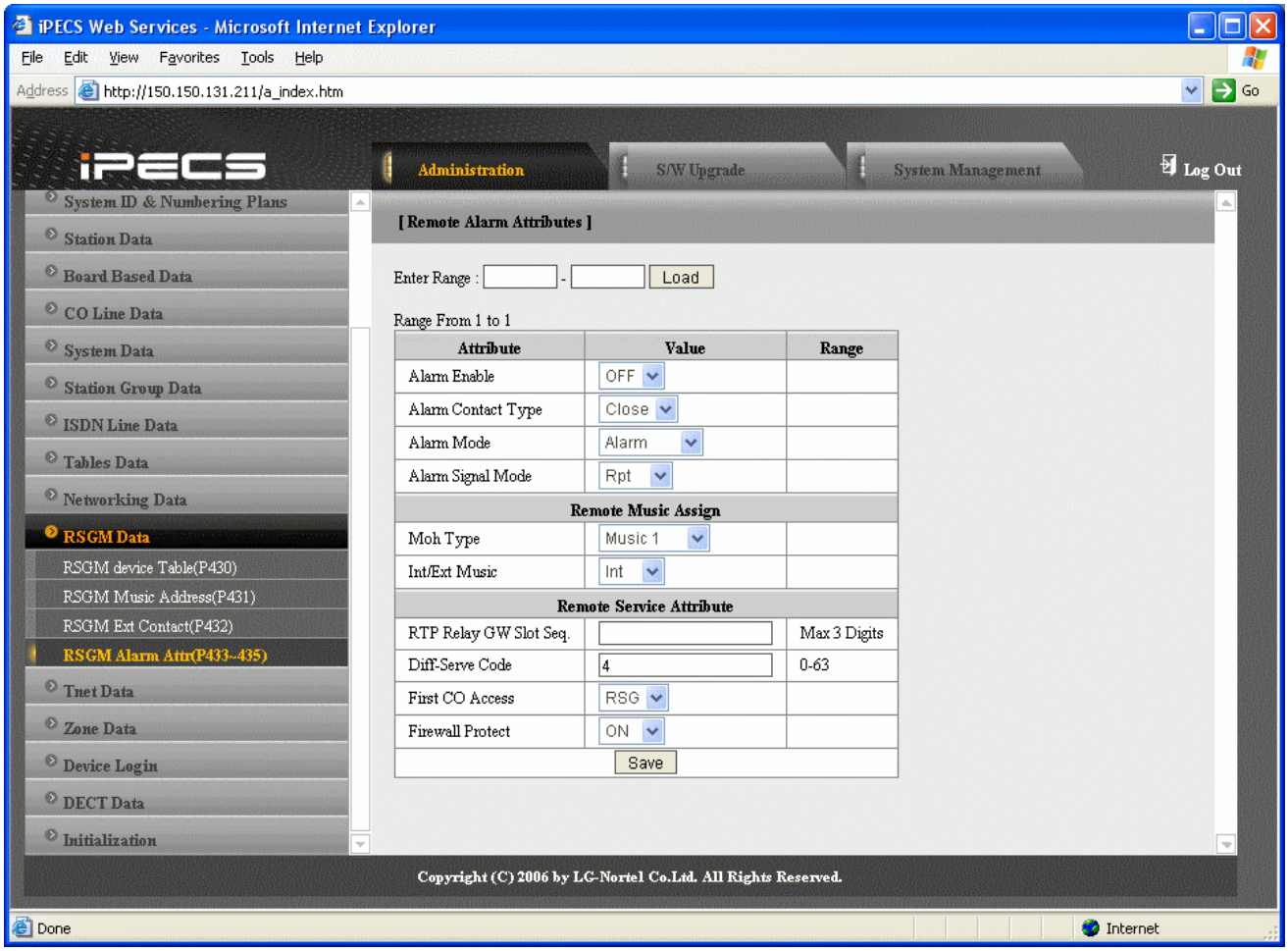


Figure 3.5.10.4-1 Remote Service Attributes

The RSGM incorporates circuitry to monitor an external contact. This contact is most often employed as an Alarm indicator or Doorbell. The Alarm attributes define the operation of the monitoring circuitry. For the Alarm, the signal to the RSGM stations can be repeating or a single burst, the former is often desired. For the Doorbell, a single tone is sent each time the contact activates. Refer to Table 3.5.10.4-1 for a description of the features and the data entries required for each attribute.

The RSGM provides Background Music (BGM) to the local iPECS Phone. It also provides MOH to the local CO Line when placed on hold. BGM is provided from the assigned 'Music' source, which may be an internal or an externally connected source. MOH may use the assigned 'Music' source or an internal "hold tone".

When connected over an unmanaged network (internet), an RSGM communicates with the iPECS resources and other users by way of a VoIP channel. Except for the MFIM600 and MFIM1200, MFIMs include a multi-channel VoIP interface, which is intended for use over a managed network (LAN/WAN). The VOIMs (Voice over IP Module) provide additional VoIP channels, which are intended for use in unmanaged network environments. VOIM channels support IPSec and adjustable DiffServ pretag. The IP channels are assigned to a CO/IP line group, refer to section 3.5.4.1 CO/IP Attributes. The MFIM and VOIM VoIP channels should be assigned to different CO/IP line groups. This entry then determines which CO/IP Line group will be used for communication with the RSGM. To assure that IPSec support is provided, the RSGM should be assigned to use a group with IP channels from a VOIM.

The IP header TOS byte is employed to define a Differentiated Services Code Point (DSCP), which is used by routers to prioritize packets. Most routers will prioritize packets with higher DiffServ Code Points. However, should delays through the router become significant, such high priority packets are the first discarded. Under high packet loss, decreasing a high DSCP may improve performance.

The RSGM local PSTN line, if equipped, is assigned as the user's Private Line. The user may access this Line automatically when dialing "9", or may access a CO/IP channel from the first CO/IP Group as defined in section 3.5.4.1 CO/IP Attributes.

Table 3.5.10.4-1 RSGM SERVICE ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Alarm Enable	Enables/disables the contact monitoring circuitry.	1: ON 0: OFF	OFF
Alarm Contact Type	This parameter establishes the contact state that will activate the Alarm, close or open.	1: Close 0: Open	Close
Alarm Mode	The contact can be treated to function as a doorbell instead of an alarm.	1: Alarm 0: Door	ALARM
Alarm Signal Mode	The assigned stations will receive a Repeating signal or single burst (ONCE) as the alarm tone.	1: Repeat 0: Once	RPT
MOH Type	Assigns the source for MOH.	1: Music 1 0: HOLD TONE	Music 1
Int/Ext1 Music	Assigns the input for source 1 (Internal or External). This is the source for BGM/MOH 'Music'.	1: EXT1 0: Int	Int
RTP Relay GW Slot Seq.	Only VOIP CO line g/w' slot sequence number can be assigned for this. When connected via an unmanaged network, RTP packets are exchanged over an IP channel from this VOIP CO g/w.	Number of Slots	NULL
Diff Serv Code	DiffServ Code Point option value.	00~63	4
First CO Access	Select RSGM CO line or System CO line for First CO line access ('9').	RSG SYS	RSG
Firewall Protected	Firewall Protected value is automatically set by the system.	0: OFF 1: ON	ON

3.5.11 TNET (Central Control Networking) Data

Selecting the TNET Data program group returns the sub-menu displayed in Figure 3.5.11-1.

Figure 3.5.11-1 TNET (Central Control Networking) Data

In a Centralized Control TNET (Transparent Networking), remote devices may be registered to a Central MFIM (CM) and to a Local MFIM (LM). In this way, the CM maintains control of the remote device. Should the WAN connection between an LM and CM fail (polling error), the LM will initiate operational control of the locally registered devices. Calls between the systems (CM and LM) can automatically shift to PSTN Modules registered with the LM for Fail-over operation. The configuration and characteristics of LMs and CM are configurable as is Fail-over operation.

3.5.11.1 Tnet Basic Attributes(PGM 330)

Re: **PGM CODE** 330

Selecting Tnet Basic Attributes will display the Tnet Basic Attributes page, Figure 3.5.11.1-1.

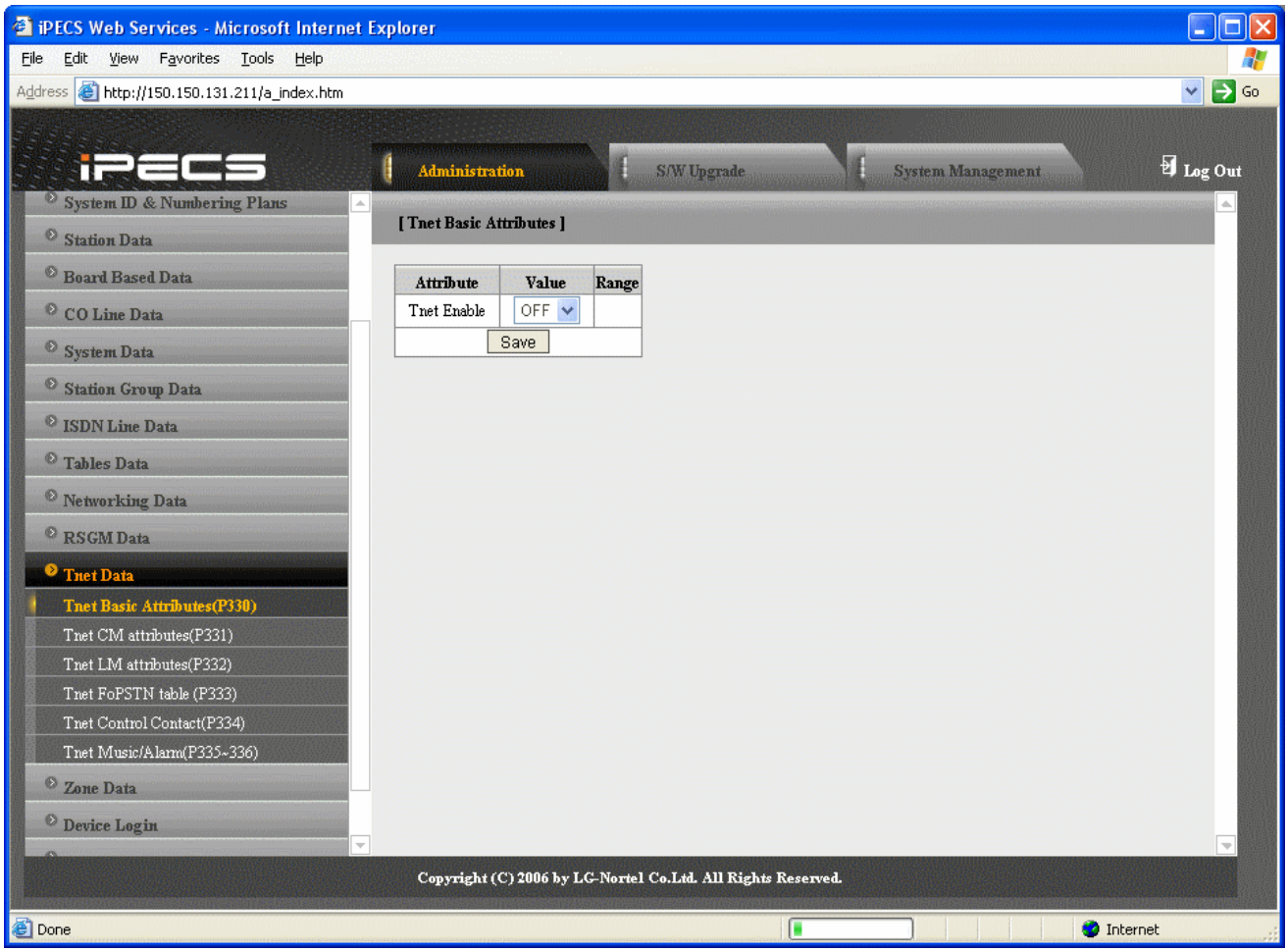


Figure 3.5.11.1-1 TNET Basic Attributes

Each MFIM in a Central Control network environment must be enabled for TNET operation in order to function as part of the network.

3.5.11.2 Tnet CM Attributes (PGM 331)

Re: **PGM CODE** 331

Selecting Tnet CM attributes will display the Tnet CM Attributes page, Figure 3.5.11.2-1.

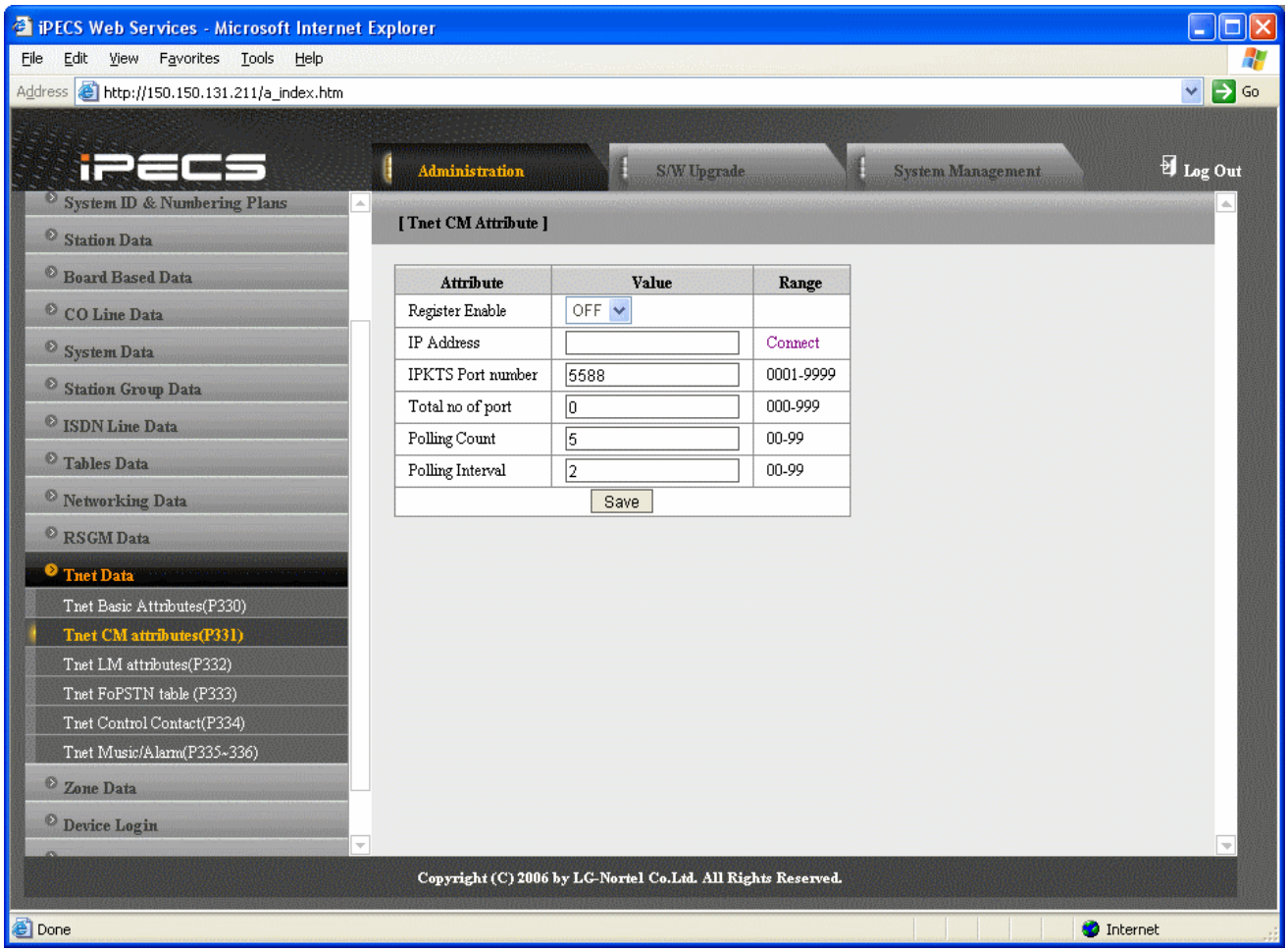


Figure 3.5.11.2-1 TNET CM Attributes

Each LM (Local MFIM), which is part of a Central Control Network, must be defined with the IP Address of the CM (Central MFIM) as well as the LM configuration data that will be sent to the CM at the time the LM registers with the CM. Total port counts define the ports, which are allocated in the CM database for use by devices registered to the LM. The number of ports defined in the database of each LM must be equal or less than the ports defined in the CM for the LM, see **PGM CODE** 332, in order to register properly.

Table 3.5.11.2-1 TNET CM ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Register Enable	This field informs the LM to attempt registration with the CM. This field must be set to ON for proper registration.	0: OFF 1: ON	OFF
IP Address	This field defines the IP address of the CM that will be used by the LM.	IPv4 address	

IPKTS Port number	In the TNET environment, the IP KTS protocol signaling UDP port is defined. At present this field is not used, do not change this port number.	0000-9999	5588
Total no of port	This field defines the total number of ports the LM will request be allocated by the CM for devices attached to the LM. This value must be equal to or less than the port count in the CM for the LM devices.	000-999	0
Polling Count	This field defines the maximum polling failures an LM considers a WAN fault.	00-99	05
Polling interval	This field defines the interval time between LM to CM polling attempts.	00-99	02

3.5.11.3 Tnet LM Attributes (PGM 332)

Re: **PGM CODE** 332

Selecting Tnet LM attributes will display the TNet LM Attributes page, Figure 3.5.11.3-1.

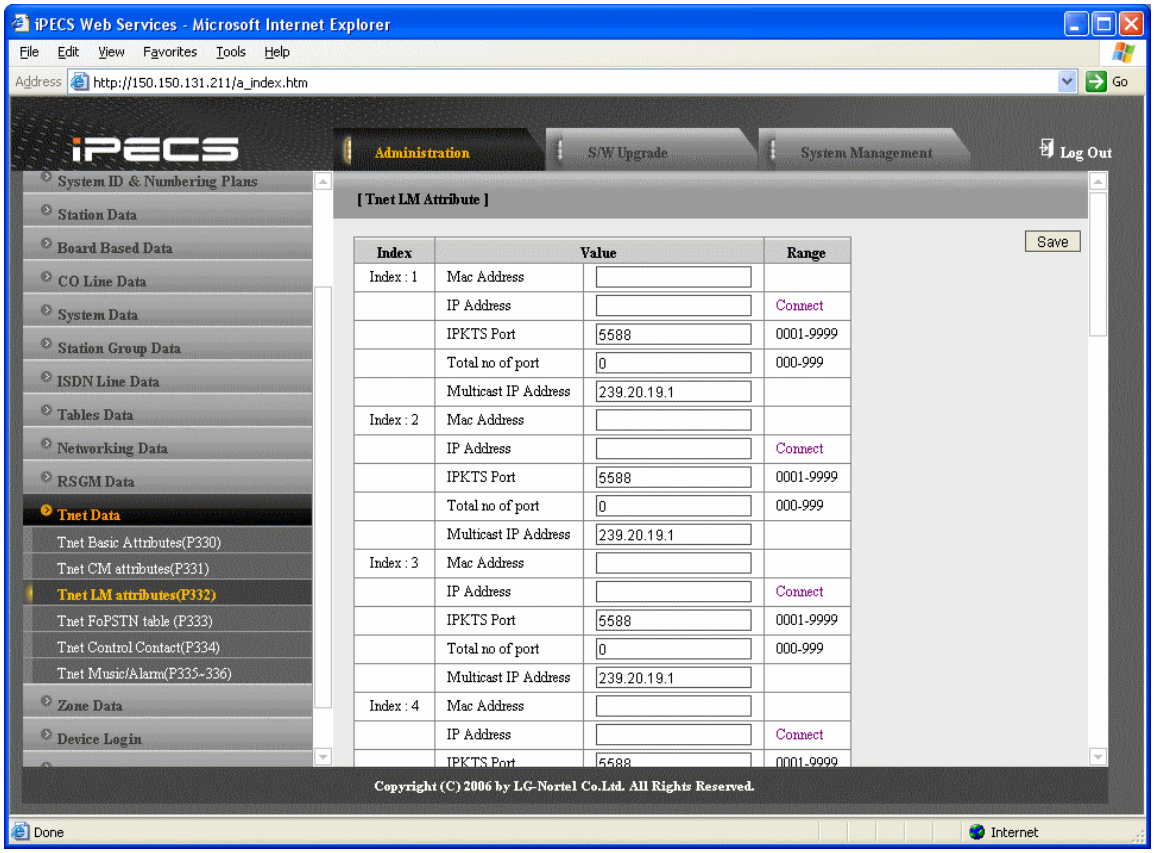


Figure 3.5.11.3-1 TNET LM Attributes

The CM (Central MFIM) must be programmed with the MAC and IP address of each LM (Local MFIM) in the Centralized Control network as well as the maximum configuration of each LM. Up to 15 Local MFIMs (LMs) may be defined and configuration entered. The port counts define the ports, which are allocated in the CM database for use by devices registered to the LM. The number of ports defined in the database of each LM, see **PGM CODE** 331, must be equal to or less than the ports defined in the CM for the LM, in order to register properly.

Table 3.5.11.3-1 TNET LM ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Mac Address	This field defines the MAC address of the LM that will be part of the TNET environment and is used by the CM for authorization.	MAC address	
IP Address	This field displays the IP address of the LM.	IPv4 address	
IPKTS Port	In the TNET environment, the IP KTS protocol signaling UDP port is defined. At present this field is not used, do not change this port number.	0000-9999	5588
Total no of port	This field defines the total number of ports the LM will request from the CM for devices attached to the LM. This value must be equal to or more than the port count defined in the LM.	000-999	

3.5.11.4 Tnet FoPSTN table (PGM 333)

Re: **PGM CODE** 333

Selecting Tnet FoPSTN table will display the Tnet Fail-over to PSTN page, Figure 3.5.11.4-1.

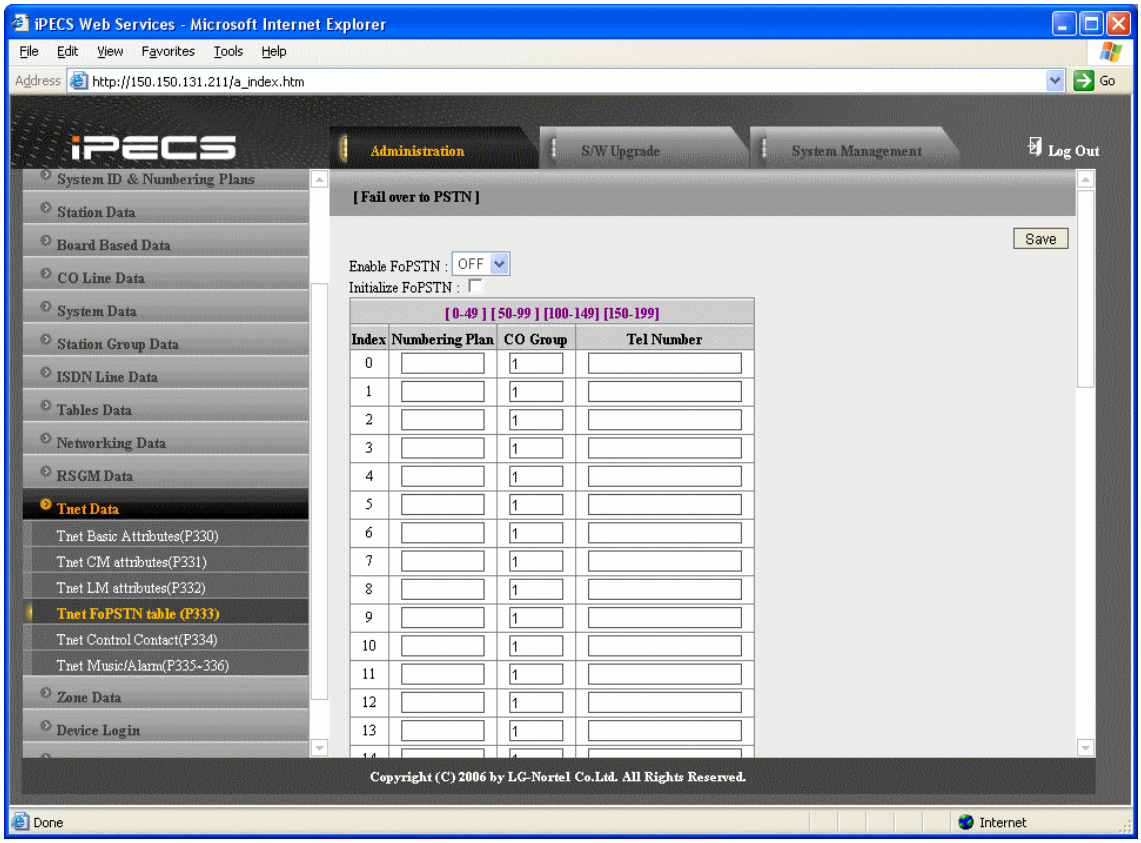


Figure 3.5.11.4-1 Fail-Over to PSTN Table

The Fail-over function allows the systems in a Centralized Control network (TNET) environment to complete calls from system to system over a PSTN (analog or digital) line should the WAN connection to the CM fail. A CO gateway Module must be registered to the LM for local control and access CO services. Users may call others in the normal manner and the call is routed over CO facilities to the remote CM. When calls are directed to a DID line at the receiving system, the system will select a line from the assigned CO Group and dial the Tel Number with the station number dialed as the trailing digits.

Table 3.5.11.4-1 FAIL-OVER TO PSTN ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Numbering Plan	Station numbers associated with the remote system. A range can be indicated by using "*" to indicate the range.	Station number	
CO Group	This field defines the CO Group of the local system that will be used to place calls to the stations entered in the FO Numbering Plan, should WAN failure occur.	CO/IP group	
Tel Number	This field defines the telephone number the system should dial to place a call to the stations entered in the FO Numbering Plan, should Wan failure occur. An "*" may be entered as a wild-card to indicate insertion of the dialed station number.	24 digits	

3.5.11.5 TNET LM EXT CONTACT (PGM 334)

Re: **PGM CODE** 334

Selecting Tnet Control Contact will display the TNet LM External Contact page, Figure 3.5.11.5-1.

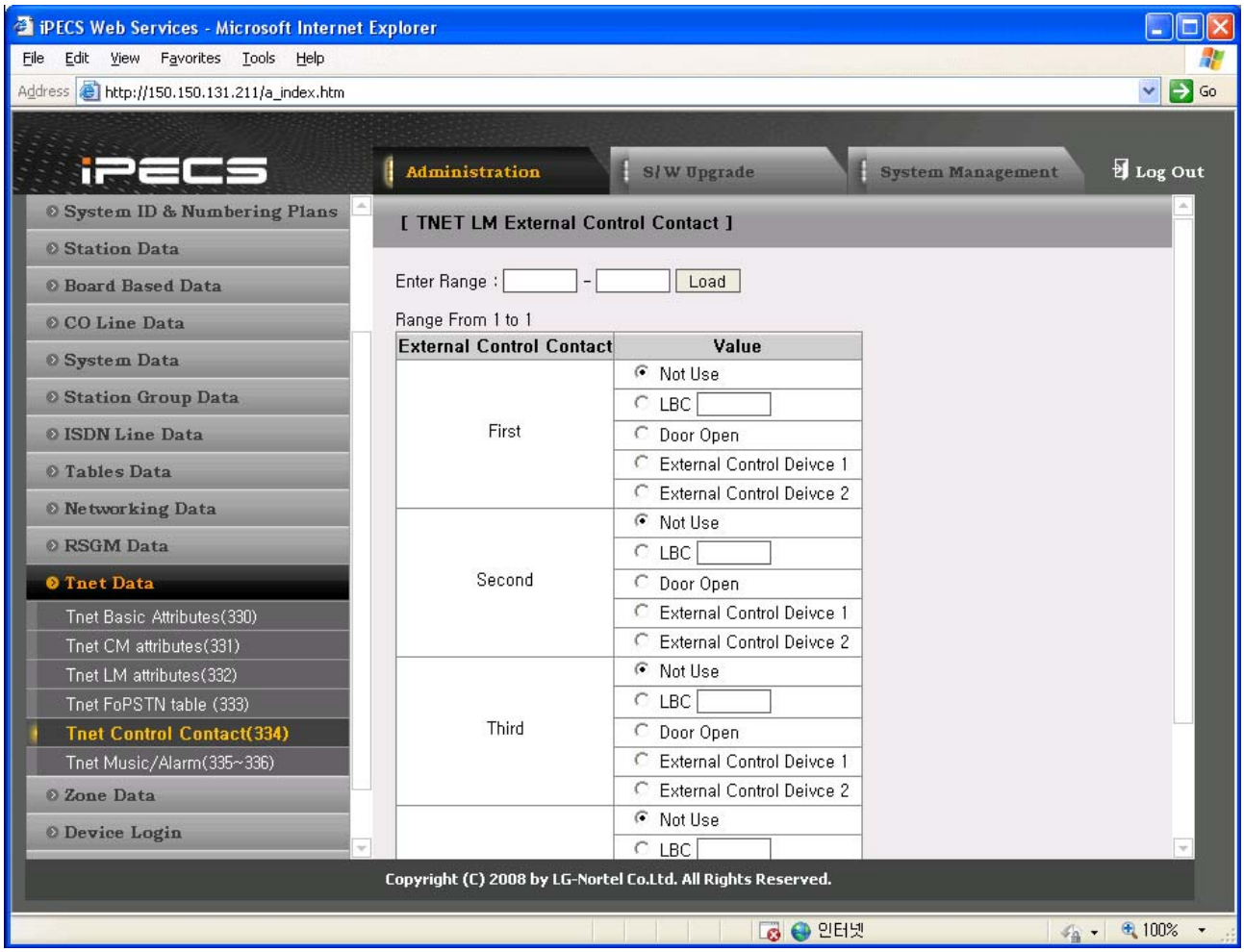


Figure 3.5.11.5-1 TNET LM EXT CONTACT

Each LM incorporates relay contacts, which can be employed as a Door Lock Release. The contact activates a 3rd party Door Lock Release mechanism activated by dialing the Door Unlock code at a local station. Note assigning other functions to the contact may cause unexpected operation.

3.5.11.6 TNET LM MUSIC/ALARM ATTRIBUTES (PGM 335/336)

Re: **PGM CODE** 335/336

Selecting Tnet Music/Alarm will display the Tnet LM Alarm & Music Attributes page.

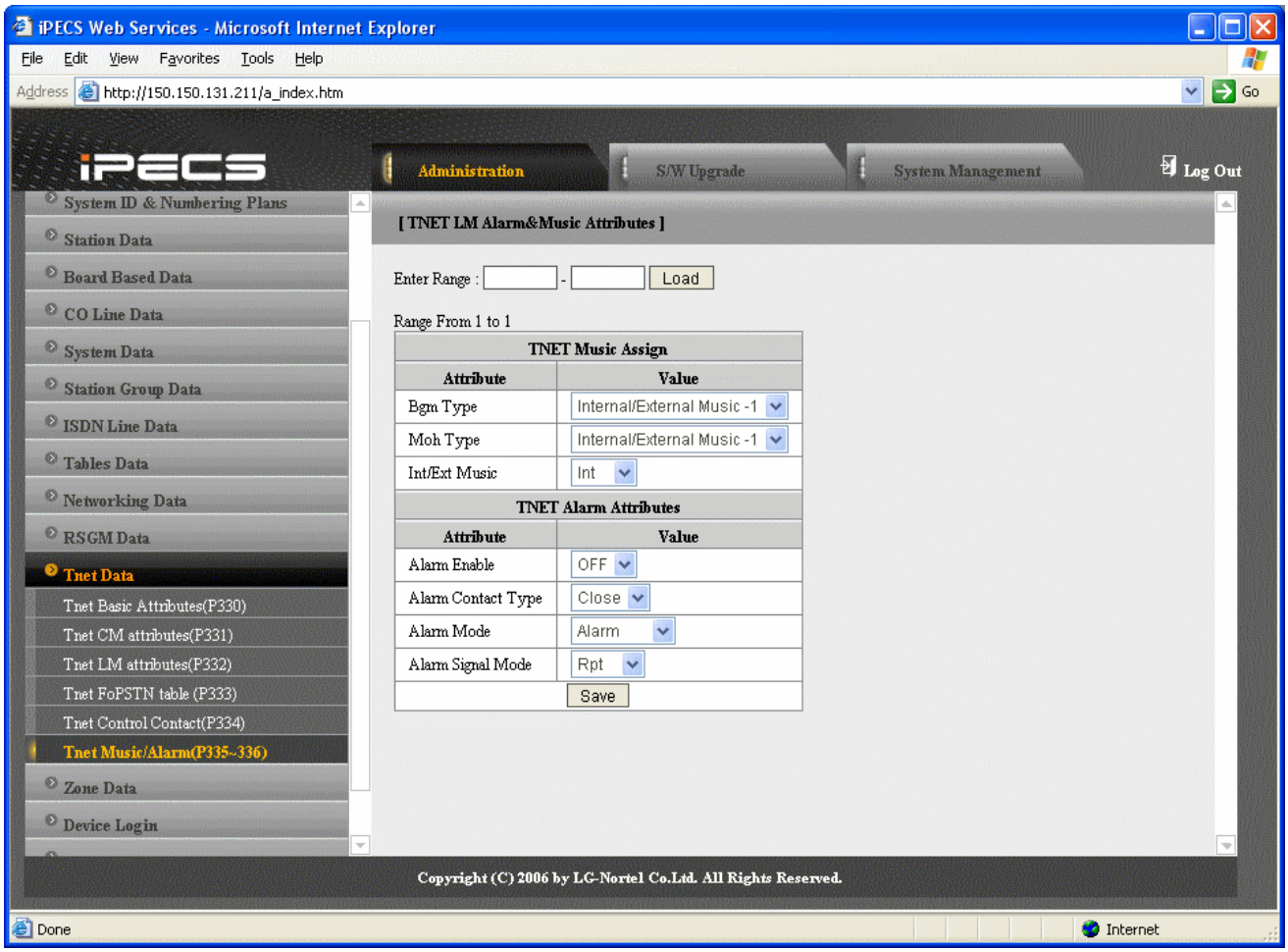


Figure 3.5.11.6-1 TNET LM MUSIC/ALARM ATTRIBUTES

To minimize WAN traffic, the CM does not provide BGM/MOH to an LM. The LM employs local BGM and MOH facilities, which reduces traffic load on the WAN and IP channel processors. The LM uses IP Multicast for local BGM and MOH transport. Also, the Alarm contacts of the LM can be defined for use as a local alarm or doorbell.

3.5.12 Zone Data

Selecting the Zone Data program group returns the sub-menu displayed in Figure 3.5.12-1.

Figure 3.5.12-1 Zone Data Main Page

Zone data is a tool employed to easily manage the characteristics of groups of devices under the control of an MFIM. Such devices can be grouped to a Zone to define common characteristics including Country Code, DSCP, RTP packet handling, etc. Common attributes are defined at the device, Zone and Inter-zone level. Device settings have priority over system and Zone settings, while Zone settings have priority over system settings.

Generally, transport of RTP packets should be a peer-to-peer communication over either a LAN or VPN. If iPECS devices are separated by a NAPT server or direct peer-to-peer communications is not available, packet relay must be employed to assure communication. In packet relay, RTP packets are received by a local VoIP channel (MFIM or VOIM), which is under control of the MFIM, and the IP address is translated from a public to the device's private address. The VoIP channel implements a secure channel using IPSec protocol. Devices can be assigned as part of an "RTP Relay group" to use the same VoIP channels to implement relay of RTP packets. Packet relay groups also provide for conversion of multi-cast packets from the MFIM to uni-cast and back again at the group level to multi-cast. Note packet relay requires an MFIM or VOIM VoIP channel be available locally for each simultaneous call that requires packet relay.

3.5.12.1 Device Zone Number

Selecting the Device Zone Number returns the Zone Number data input page, Figure 3.5.12.1-1. Enter the Sequence Range (refer to section 3.5.1.3 System & Device IP Address Plan) and click Load to assign a Zone number for the device.

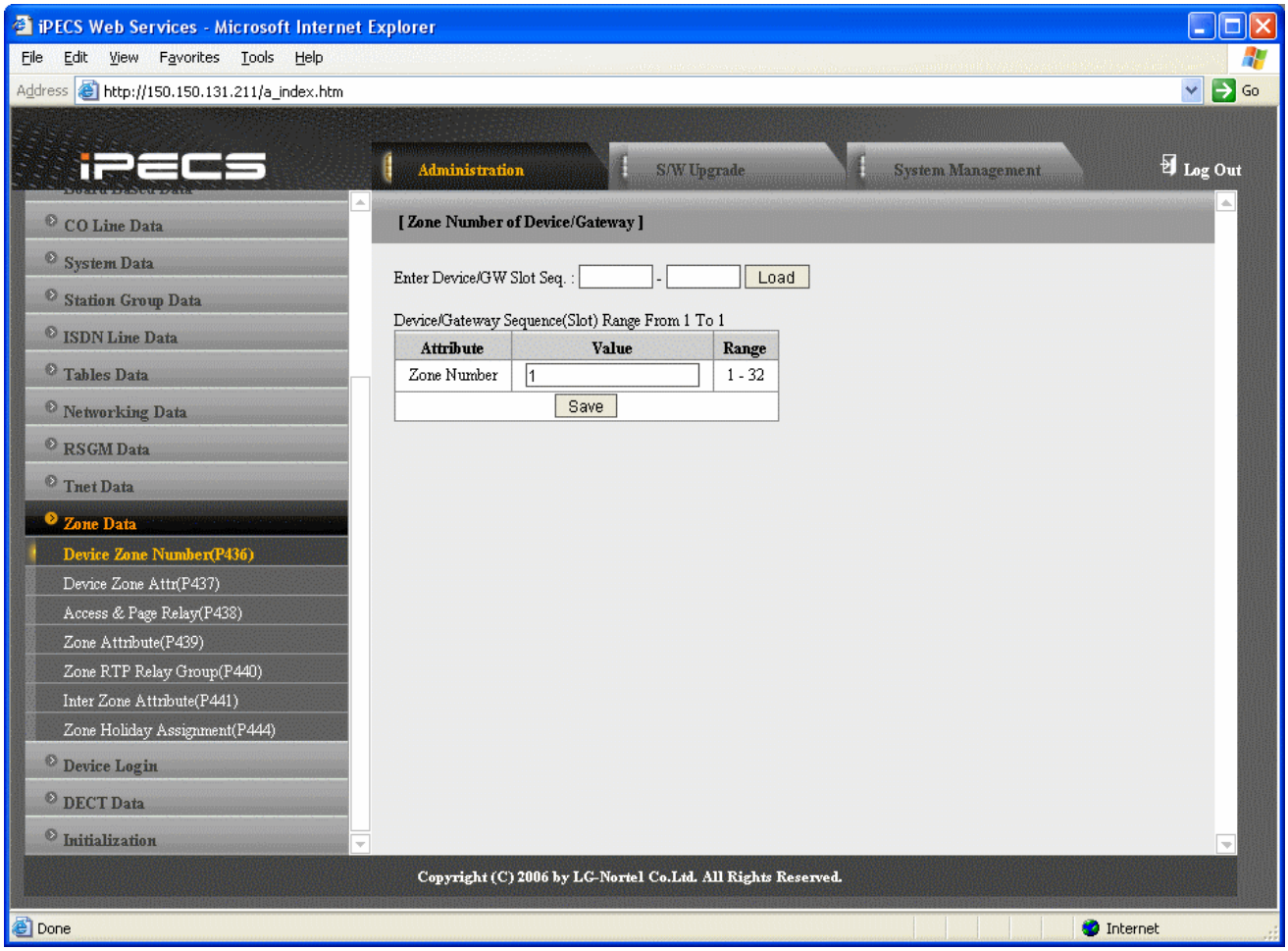


Figure 3.5.12.1-1 Device Zone Number

Device Zone Number assigns a device to one of up to 32 specific Zones.

3.5.12.2 Device Zone Attributes

Selecting the Device Zone Attr returns the Device Zone Attributes data input page, Figure 3.5.12.2-1. Enter the Sequence Range (refer to section 3.5.1.3 System & Device IP Address Plan) and click Load to assign a Zone number for the device.

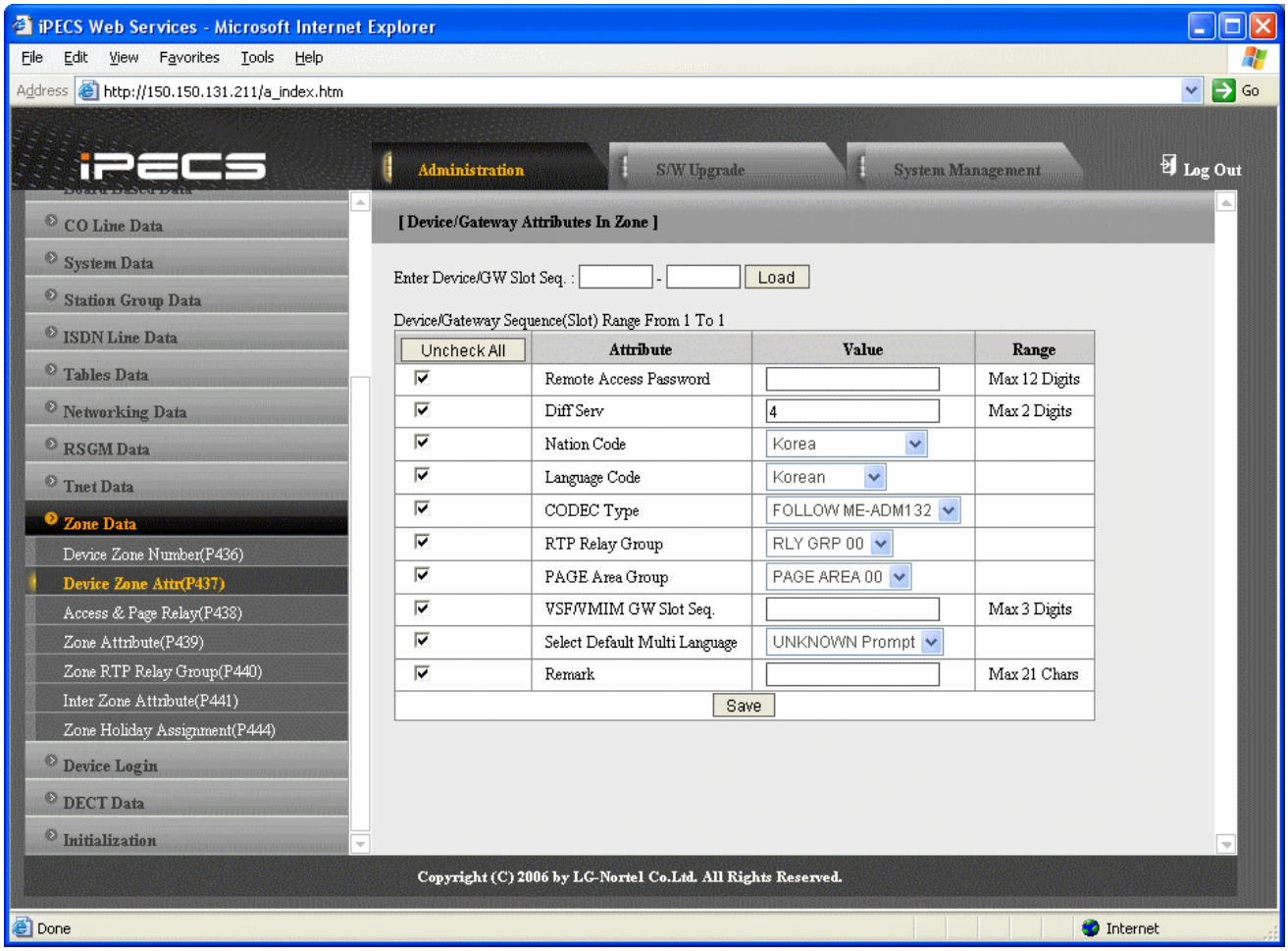


Figure 3.5.12.2-1 Device Zone Attributes

Device Zone Attributes define characteristics specific to the device including the registration password, DiffServ Code Point, Nation, etc. In addition, Zone characteristics set at the Device level take precedence over characteristics for the Zone Attributes. While a Zone may incorporate up to 15 different RTP packet Relay Groups, for clarity a single RTP Relay Group should be used within a Zone.

Table 3.5.12.2-1 DEVICE ZONE ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Device Password	Registration password assigned in device for Remote stand-alone device only	12 digits max	none
Diff Serv	MFIM assigned code point will take precedence. Applies to all devices	0-63	4

Nation Code	National location of the device. Available selections are given in Table 2.3.1-2.	Country Code	MFIM
Language Code	Devices' default language. The language selection type is this default language or English.	Language Code	Nation dependent
Codec Type	The codec selection method can be defined as device based, see **PGM CODE** 132, or based on the codec type assigned to the Zone.	Board based or Zone	Board based
RTP Relay Group	Assigns the RTP Relay group employed by the device. Zone parameters define the VOIM to employ.	00-15	00 (no relay)
Page Area Group	Assigns the Paging Area group identity to relay paging data across the network using VOIM or Paging Agent	00-15	00 (same paging relay area)
VSF/VMIM GW Slot Seq	Assigns the VSF/VMIM used to support Voice Mail for a device. The VSF/VMIM must be under control of the same MFIM as the device being assigned.		
Select Multi Language	User recorded language prompt is played to the user when accessing the VSF or VMIM.	Type of prompt for assigned VSF or VMIM	Default prompt
Remark	Descriptive information to help installer/programmer in identifying the device Zone, i.e. Branch1.	21 characters	

3.5.12.3 Access & Page Relay

Selecting Access & Page Relay returns the Access & Page RTP packet relay data input page, Table 3.5.12.3-1. Enter the Sequence Range (refer to section 3.5.1.3 System & Device IP Address Plan) and click Load to define packet relay characteristics for Paging between Zones.

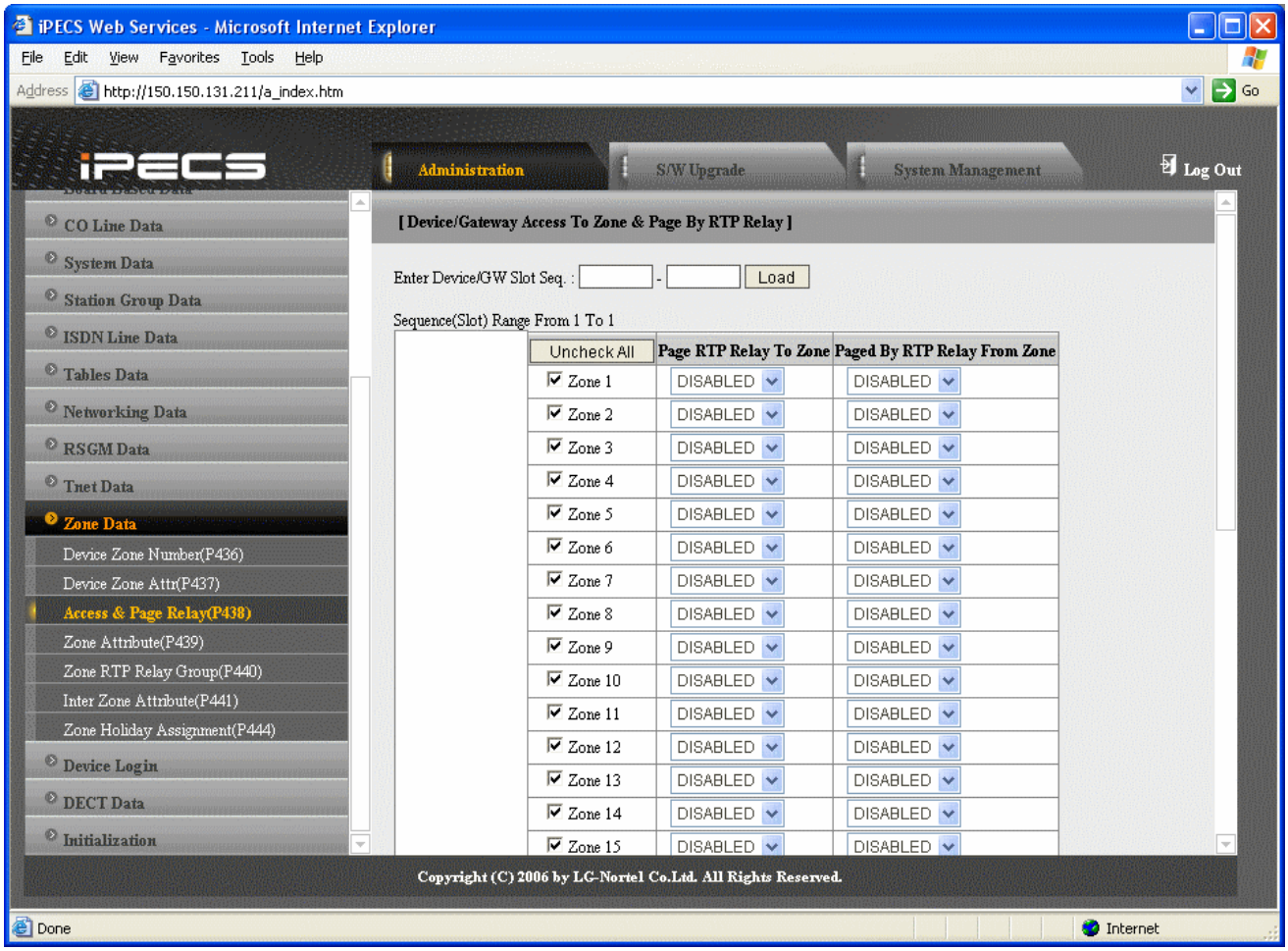


Figure 3.5.12.3-1 Zone Page RTP Packet Relay

iPECS protocol employs multi-cast to send of RTP packets to multiple devices at one time. This improves efficiency and lowers traffic by sending a single multi-cast packet to multi-cast group members. In particular, paging employs this multi-cast technique. However, since multi-cast is not commonly supported outside of the LAN, uni-cast must be used to transport such signals between routers. At the receiving Zone, a local VoIP channel receives the uni-cast signal from the controlling MFIM. The VoIP channel then converts the packet address to a multi-cast signal for delivery to devices in the same Zone RTP Relay Group.

Table 3.5.12.3-1 Zone Page RTP Packet Relay

ATTRIBUTE	REMARK	RANGE	DEFAULT
Page RTP Relay to Zone	From this device to the Zone selected enable or disable.	Enable Disable	disable
Page By RTP Relay From Zone	To this device from the Zone selected, enable or disable.	Enable Disable	disable

3.5.12.4 Zone Attribute

Selecting the Zone Attributes returns the Zone Attributes data input page, Figure Figure 3.5.12.4-1. Enter the desired Zone number range and click Load to assign Zone characteristics.

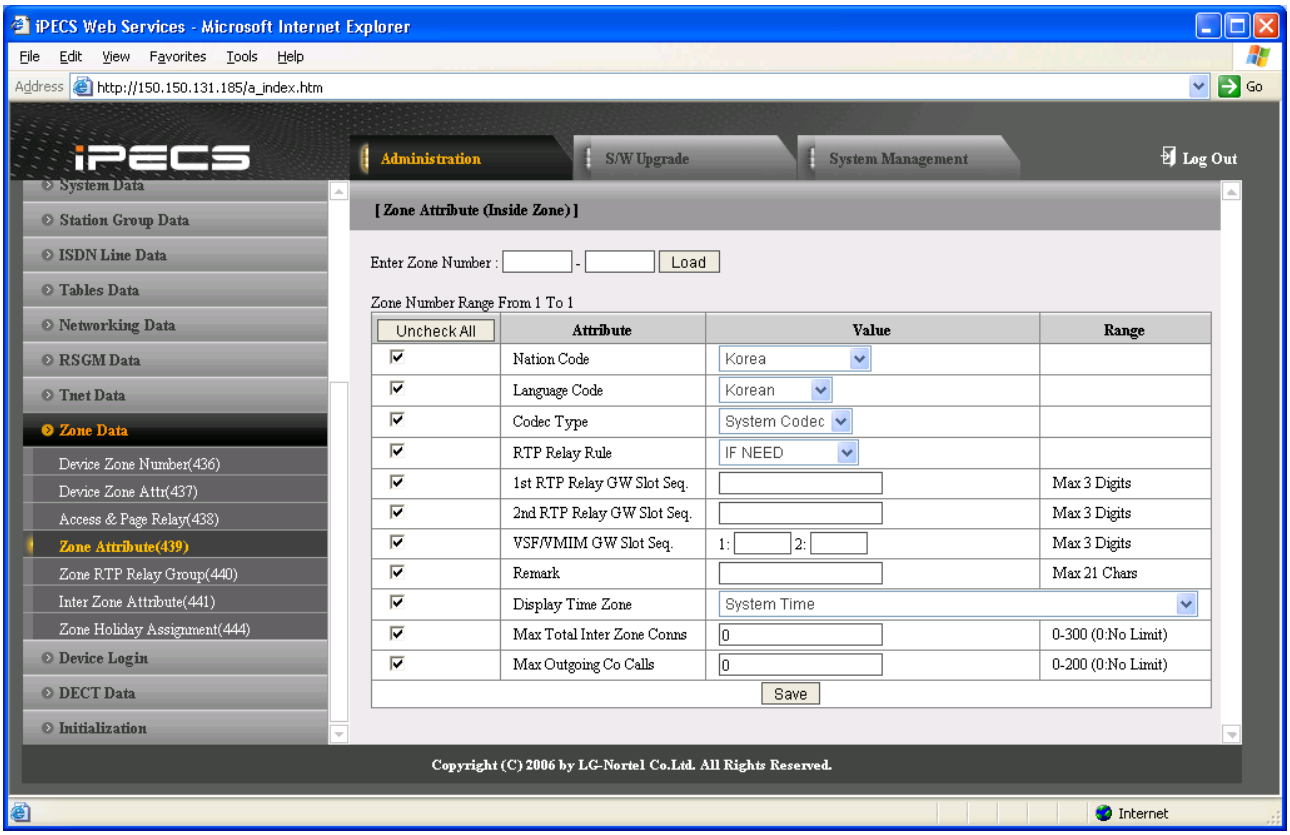


Figure 3.5.12.4-1 Zone Attributes

The nation code, codec and VSF/VMIM assigned for a Zone will be employed by all devices in the Zone unless a different entry is made in Device Zone data. If the Device Zone data is default or assigned by the MFIM, the Zone data will take precedence.

The Zone Attributes define when and which VoIP channels to use for RTP packet relay. Local VoIP channels are assigned to perform the packet relay function and the use can be defined as ”if needed” or use the assigned RTP Relay Group. For “if Need”, the MFIM will employ the IP KTS STUN protocol to determine when packet relay is required. If assigned “RTP Relay Group”, packet relay will always be employed for RTP packet receipt.

Table 3.5.12.4-1 ZONE ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Nation Code	Nation code of devices in the zone. Available selections are given in Table 2.3.1-2.	Country code	MFIM
Language Code	Language code of devices in the zone.	Language Code	Nation dependent

Codec Type	Assigns the codec employed by devices in the Zone.	G.711 G.723.1 G.729 System codec	System codec
RTP Relay Rule	Assigns when to use the packet relay function, with “If Need” the MFIM will automatically determines when to use packet relay, while “RTP Relay Group” will always implement packet relay for RTP packets.	If needed RTP Relay Group	If needed
1st RTP Relay GW Slot Seq.	Assigns the local MFIM VoIP or VOIM IP channels that will be used to implement packet relay for devices in the Zone.	Sequence Number	
2nd RTP Relay GW Slot Seq.	Back-up VoIP channels for RTP packet relay use in the Zone.	Sequence Number	
VSF/VMIM GW Slot Seq	Assigns the VSF/VMIM used to support Voice Mail for devices in the Zone. The VSF/VMIM must be under control of the same MFIM as the device being assigned.	Sequence Number	
Remark	Descriptive information to help installer/programmer in identifying the device Zone, i.e. Branch1.		
Display time zone	The time & date displayed at the station are based on the time zone selected or the system time .	Time zone	System time
Max Total Inter Zone Conns	Maximum Total Inter Zone Connections. When this value is set to 0, it means that there is no limit of total inter zone connections.	IPECS-Micro 0- 26 IPECS-50 0- 50 MFIM100 0-70 MFIM300 0~300 MFIM600 0~600 MFIM1200 0~1200	0
Max Outgoing Co Calls	Maximum Outgoing Co Calls. When this value is set to 0, it means that there is no limit of outgoing co calls.	IPECS-50 & MFIM100 0- 42 MFIM300 0~200 MFIM600 0~400 MFIM1200 0~600	0

3.5.12.5 Zone RTP Relay Group

Selecting the Zone RTP Relay Group returns the RTP Relay ON/OFF data input page, Figure Figure 3.5.12.5-1. Enter the desired Zone and Group numbers and click Load to assign Zone characteristics.

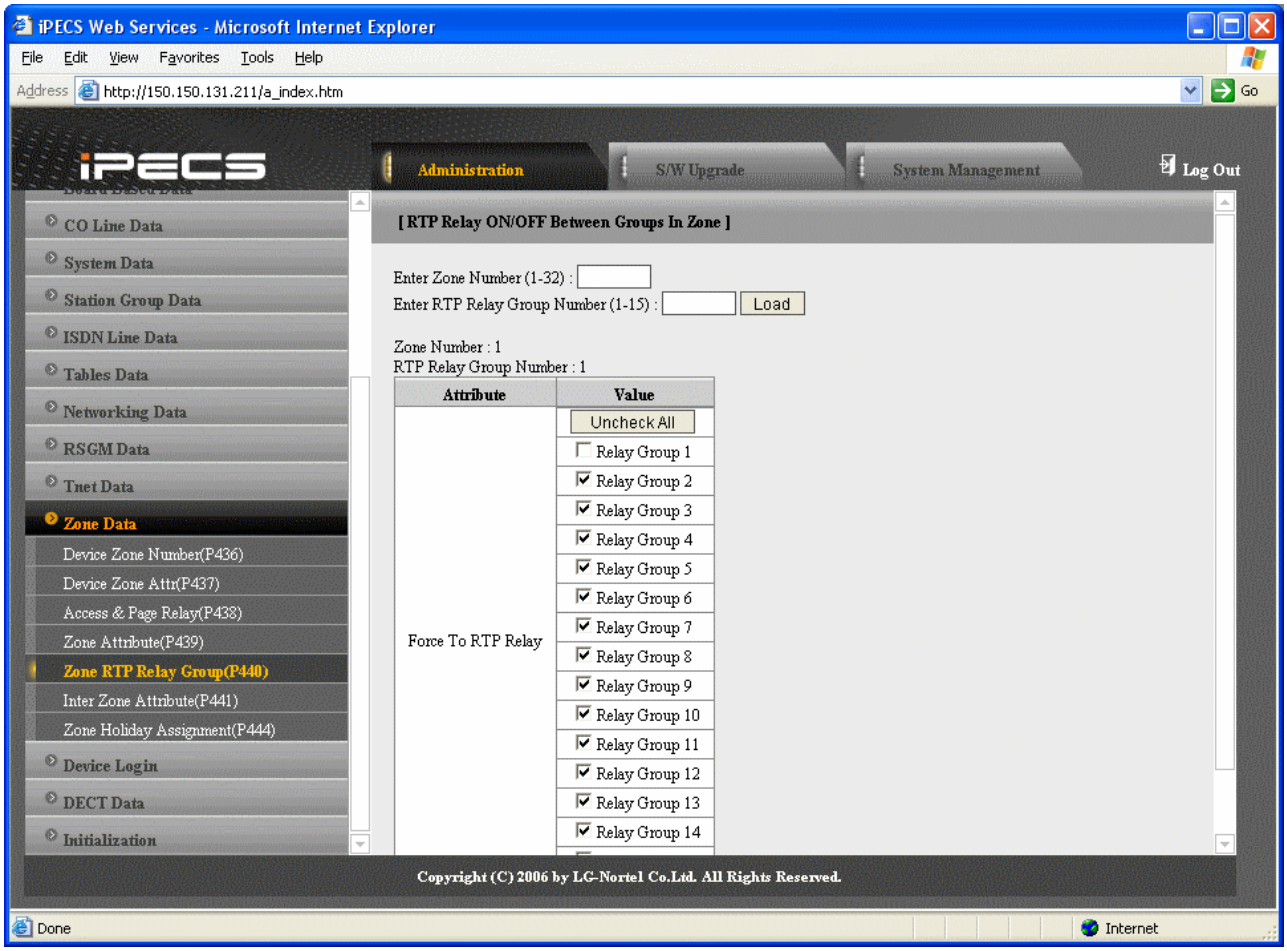


Figure 3.5.12.5-1 Zone RTP Packet Relay Groups

While it is strongly recommended that a Zone only have a single RTP Relay Group, up to 15 Groups can be assigned to a Zone. Devices in an RTP Relay Group should have common requirements for packet relay use. In some situations, it may be necessary to implement packet relay to groups in a Zone. Note that when “if Need” is assigned as the RTP Relay Rule in the Zone Attributes, assignments here are ignored.

3.5.12.6 Inter Zone Attribute

Selecting the Inter Zone Attribute returns the data input page, Figure 3.5.12.6-1. Enter the desired Source and Destination Zone number range and click Load to assign Zone characteristics.

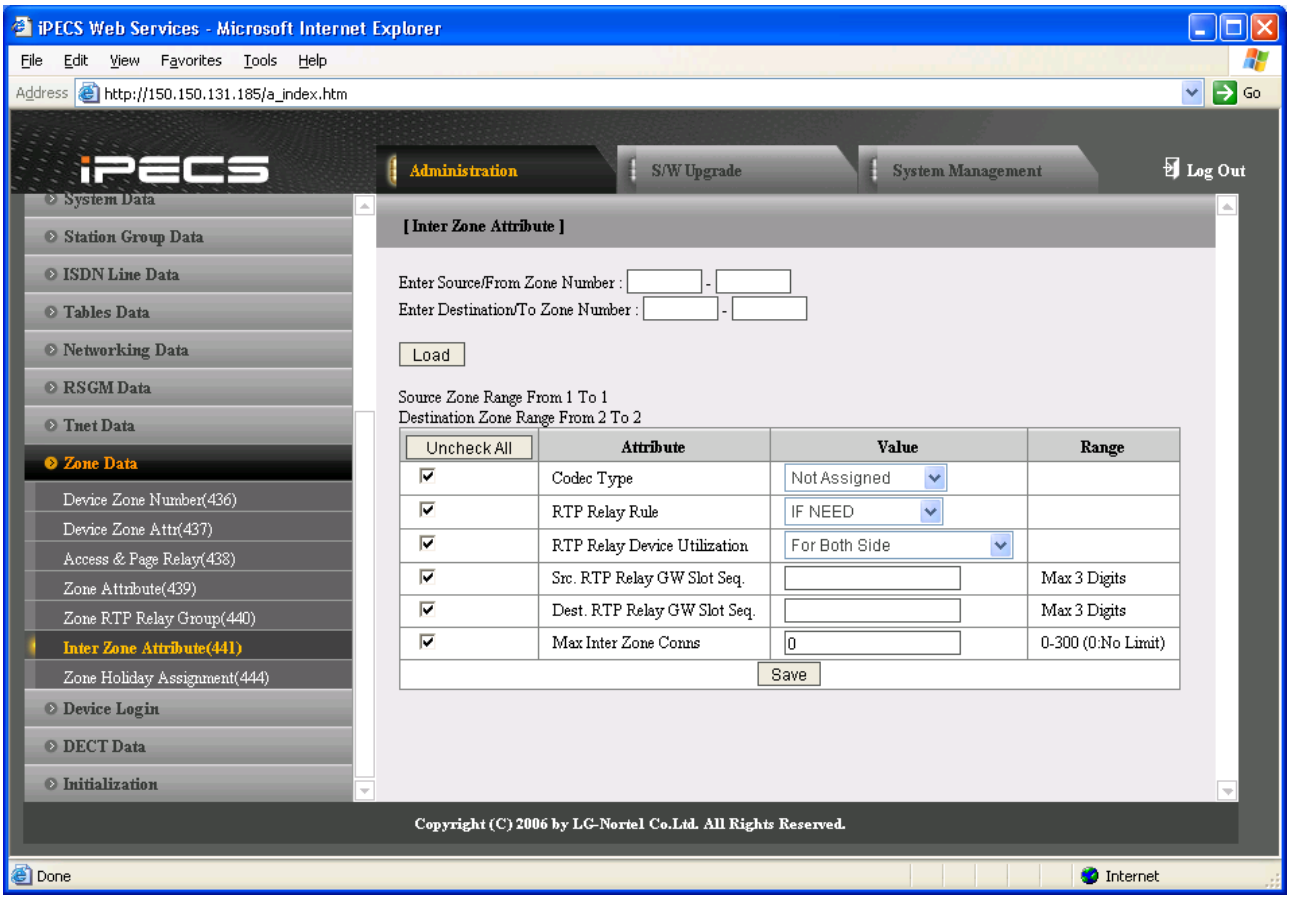


Figure 3.5.12.6-1 Inter-Zone Attributes

Inter Zone Attributes define RTP packet relay treatment for communications between devices in different Zones.

Table 3.5.12.6-1 INTER-ZONE ATTRIBUTES

ATTRIBUTE	REMARK	RANGE	DEFAULT
Codec Type			Not Assigned
RTP Relay Rule	Assigns when to use the packet relay function between Zones, with “If Need” the MFIM will automatically determine when to use packet relay, while “RTP Relay Group” will always implement packet relay for RTP packets between the Zones.	If needed RTP Relay Group	If needed

RTP Relay Device Utilization	Assigns how to employ the Source and Destination VoIP channels. The assigned Source channels may be used for both sides of the communication or separately only for a device in the Source Zone. The Destination channels are then used as back-up channels or only for devices in the Destination Zone.	Both, Separate	Both Sides
Src RTP Relay GW Slot Seq.	Sequence number of MFIM VoIP or VOIM to handle Packet relay for Source Zone.		
Dest. RTP Relay GW Slot Seq.	Sequence number of MFIM VoIP or VOIM to handle Dest packet relay. When Utilization is Separate the channels are used for devices in the destination Zone, otherwise they are used as back up for both sides.		
Max Inter Zone Conns	Maximum Inter Zone Connections between source zone and destination zone. When this value is set to 0, it means that there is no limit of inter zone connections between zones.	IPECS-Micro 0- 26 IPECS-50 0- 50 MFIM100 0-70 MFIM300 0~300 MFIM600 0~600 MFIM1200 0~1200	0

3.5.12.7 Zone Holiday Assignment

Re: **PGM CODE** 444

Selecting the Zone Holiday Assignments returns the data input page, Figure 3.5.12.7-1 Enter the desired Source and Destination Zone numbers range and click Load to assign Zone holiday.

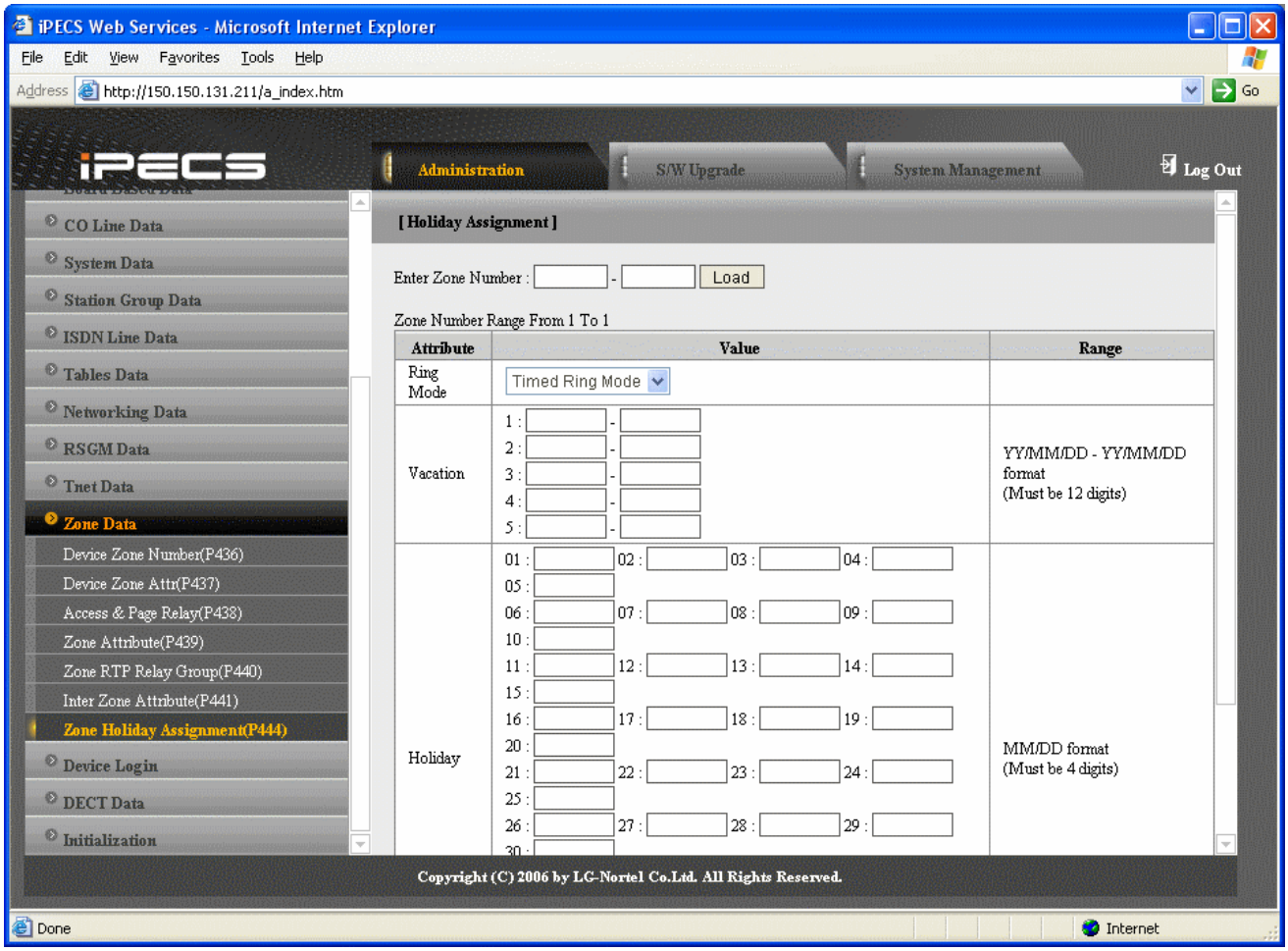


Figure 3.5.12.7-1 Zone Holiday Assignment

Holidays and vacation day intervals for each zone can be established to define the Service mode (Day, Night, and Timed) Up to 40 holidays and 5 vacation intervals can be defined.

Table 3.5.12.7-1 ZONE HOLIDAY ASSIGNMENT

ATTRIBUTE	REMARK	RANGE	DEFAULT
Ring Mode	Enter the desired Service mode for the Holiday or Vacation.	DAY NIGHT TIMED N/A	TIMED
Vacation	Assign a date range for the vacation entering the start and end dates as yymmdd - yymmdd.	12 digits	None
Holiday	Assign a date for the holiday for the Zone as mmdd	4 digits	None

3.5.13 Device Login

Selecting the Device Login Data program group returns the sub-menu displayed in Figure 3.5.13-1.

Figure 3.5.13-1 Device Login Data Main Page

3.5.13.1 Remote Phone & CO Gateway Registration

Selecting the Remote Phone/CO G/W Registration returns the Remote Registration table data input page, Figure 3.5.13.1-1.

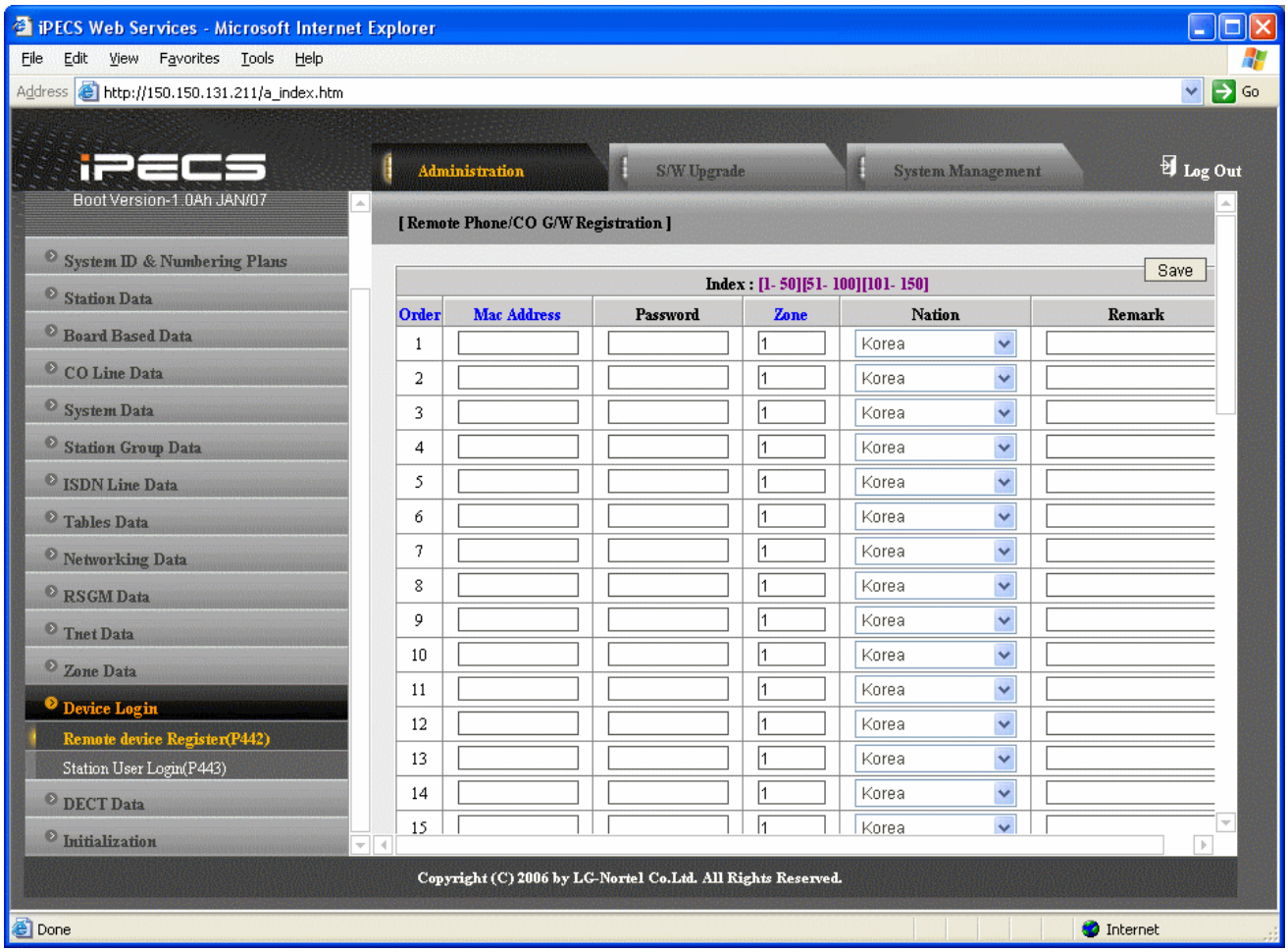


Figure 3.5.13.1-1 Remote Phone & Gateway Registration

When a device attempts to register with the controlling iPECS, the system will check the device MAC address and password against the Registration table. If a match is found, the device is registered regardless of Dip-switch position 3. The system database is updated and the device receives device specific configuration data from the MFIM.

Table 3.5.13.1-1 REMOTE PHONE & GATEWAY REGISTRATION

ATTRIBUTE	REMARK	RANGE	DEFAULT
Mac Address	Mac address of remote device	MAC Address	
Password	Password, if any, assigned in the devices database via Device Web admin.	Up to 12 digits	
Zone	The Zone to be assigned to the device.	01-32	01
Nation	Nation or country location of the device.	See Table 2.3.1-2.	Assigned in System ID

3.5.13.2 Station User Login

Selecting the Station User Login returns the User Login Registration data input page, Figure 3.5.13.2-1.

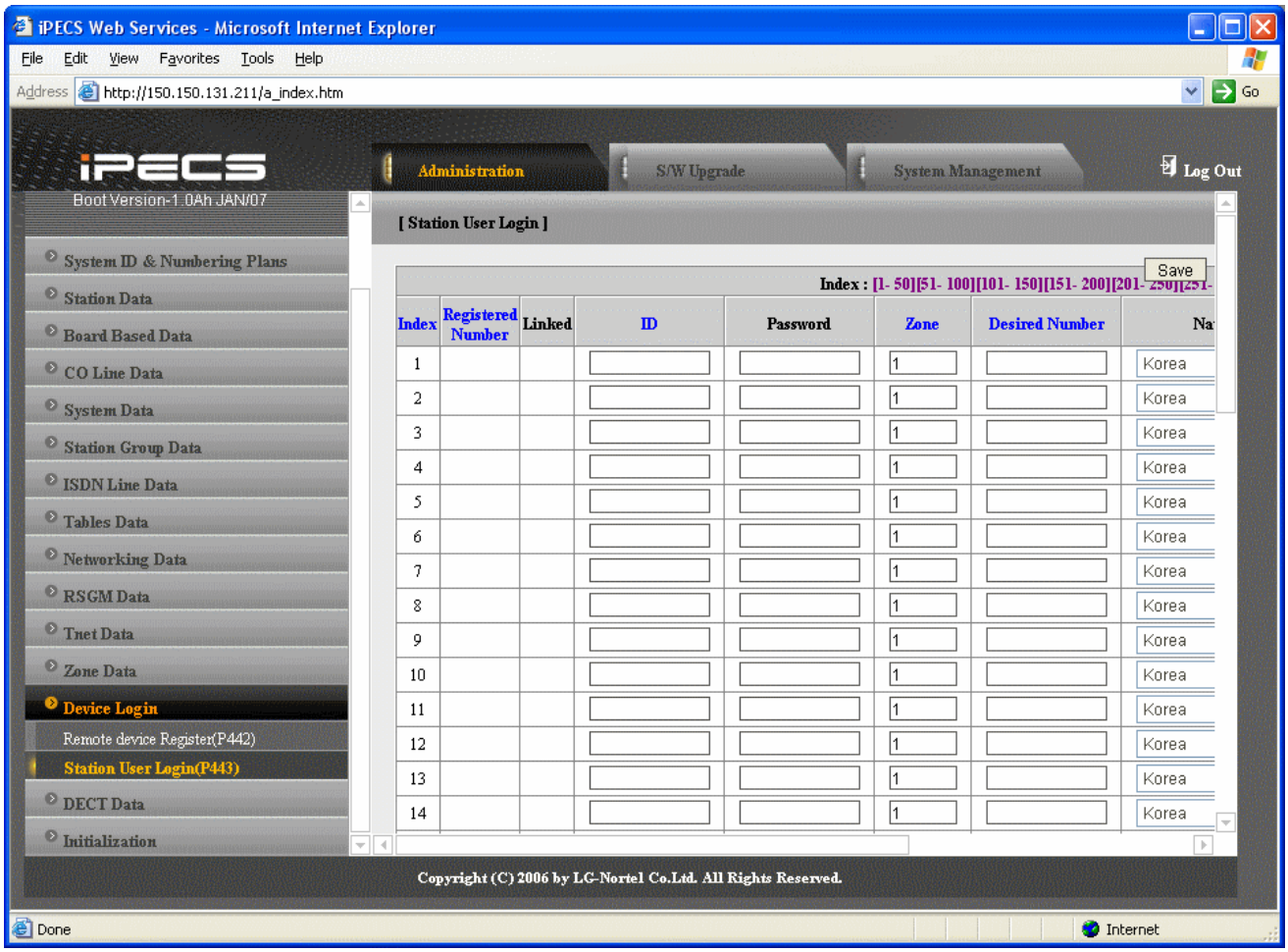


Figure 3.5.13.2-1 Station User Login

Station User Login is primarily intended for Phontage & UCS Client registration. A station must register with the system each time it is connected to the system. A user may register the Phone employing a Login code (User ID) and password. Once registered, the station number is assigned. The login is regardless of the DIP-switch 3 setting on the controlling MFIM. If DIP-switch 3 is set to allow registration, the system will allow any User ID and password for registration. Once registered, this User ID must match the password for future registrations. The ID and password can be pre-assigned along with definition of Zone, desired station number, country code, Language and a remark. For UCS client, the password is controlled by the UCS server and it is disabled in MFIM. A link-paired station can be assigned or pre-assigned by assign the same Desired-Number as a Master station.

Table 3.5.13.2-1 STATION USER LOGIN

ATTRIBUTE	REMARK	RANGE	DEFAULT
Registered Number	Station number registered to the station, displayed only after registration	Station number	
Linked	Indicates Linked pair status and station number	Station number	
ID	User Login ID.	12 Characters	
Password	User Login password	12 digits	
Zone	The Zone to be assigned to the device.	1-32	1
Desired Number	Station number desired for the device.	Station number	
Nation	Nation or country location of the device.	See Table 2.3.1-2.	Assigned in System ID
Language	Devices' default language. The language selection type is this default language or English.	Language Code	Nation dependent

3.5.14 Initialization

Re: **PGM CODE** 450

Selecting Initialization will return the sub-menu in Figure 3.5.14-1.

Figure 3.5.14-1 Initialization

3.5.14.1 Initialization Table

Re: **PGM CODE** 450

Selecting Initialization will display the Initialization Table data entry page, Figure 3.5.14.1-1.

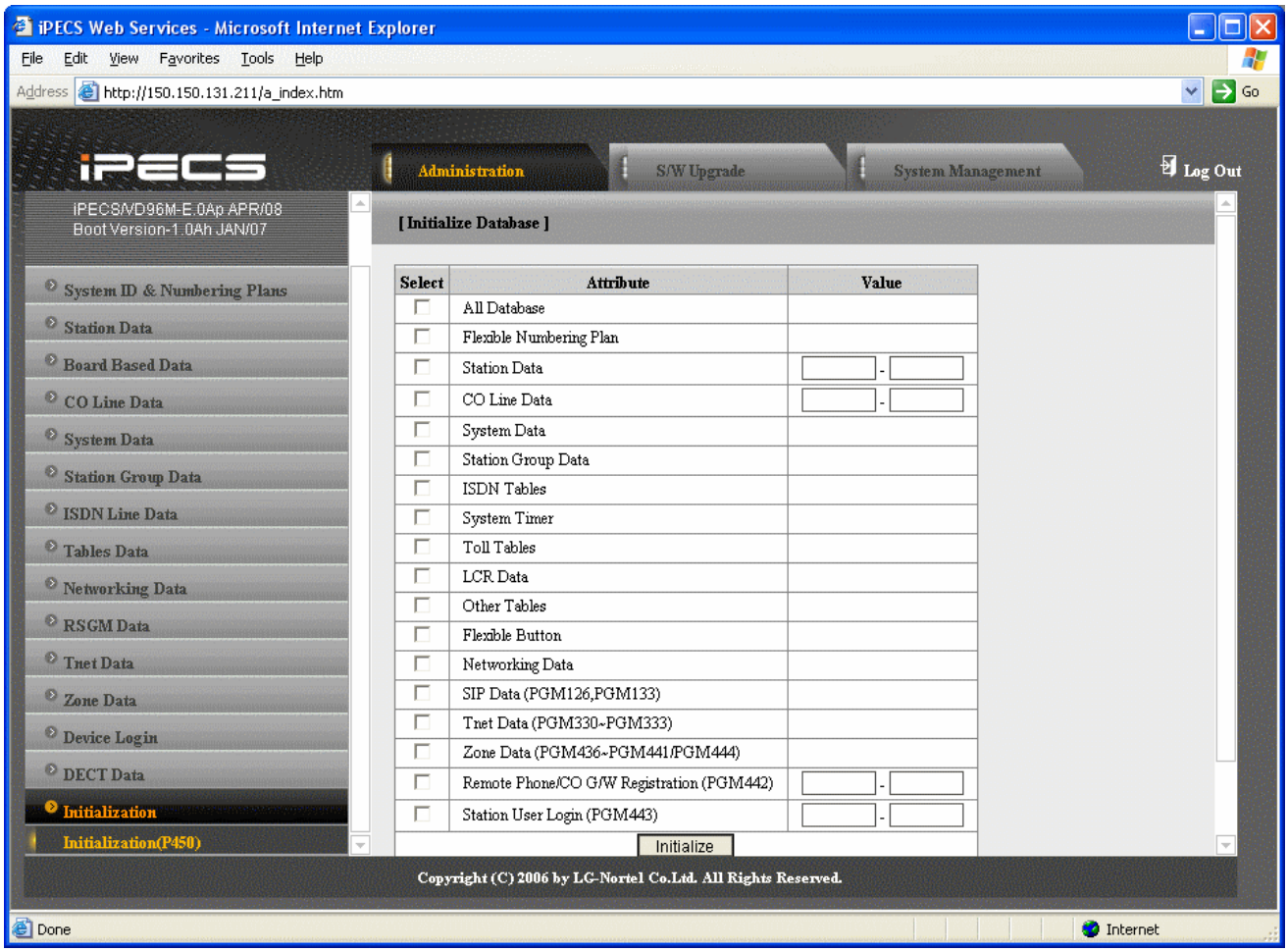


Figure 3.5.14.1-1 Initialization Menu

The system has been pre-programmed with certain features using the default data. The default data are loaded into memory when the system is initialized. The system should always be initialized when first installed or the database appears corrupted. The system can be initialized manually during installation, refer to the iPECS Description & Installation Manual, section 4.4.2. After Initialization, the system should be reset.

3.5.15 DECT Data

Re: **PGM CODE** 491

Selecting the DECT Data program group returns the sub-menu displayed in Figure 3.5.15-1.

Figure 3.5.15-1 DECT Data Main Page

3.5.15.1 DECT Registration

Selecting DECT Registration returns the DECT Registration input page, Figure 3.5.15.1-1.

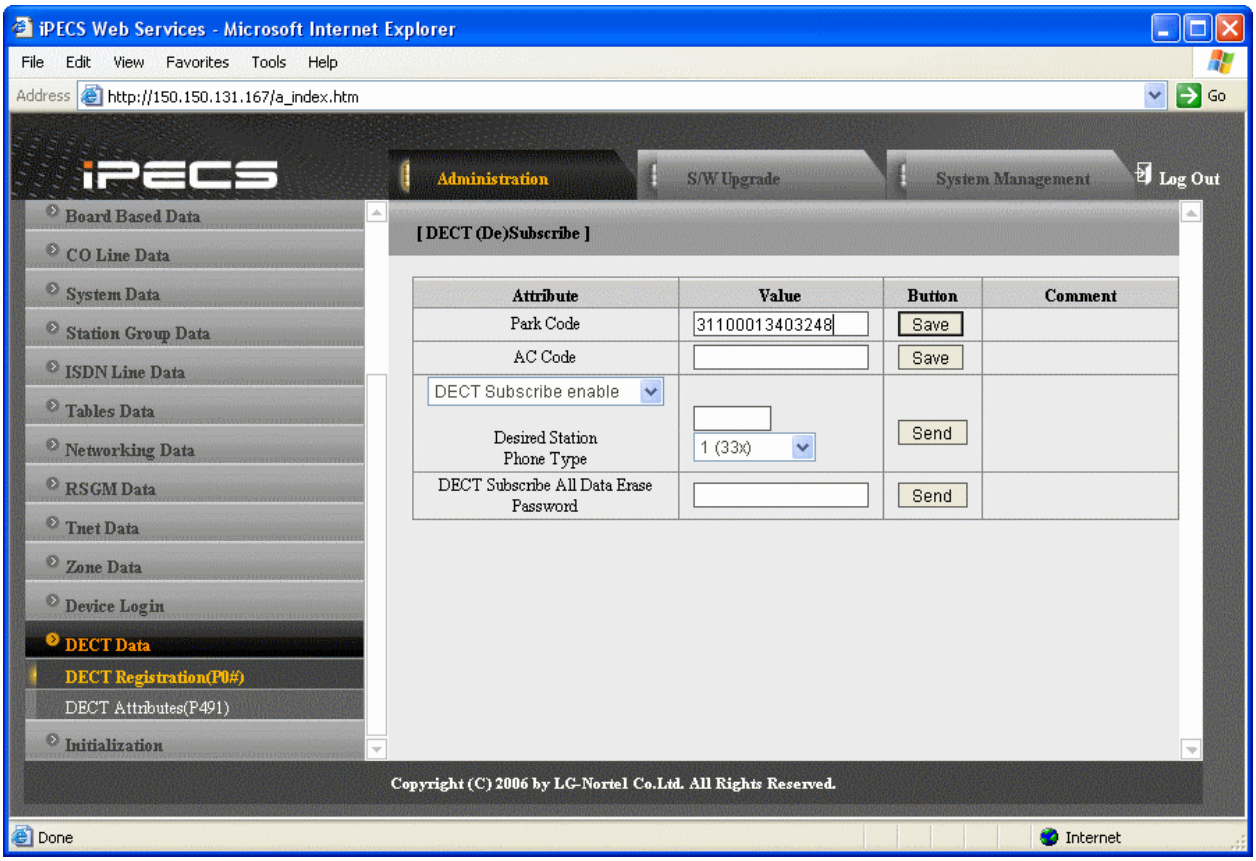


Figure 3.5.15.1-1 DECT Subscription Screen

On this page, the DECT id and authorization codes are defined. In addition, a pull down menu selects one of four subscription events, subscribe, (de)subscription, mobility or display registered stations. A separate password box permits password entry to terminate (erase) all DECT subscriptions.

Table 3.5.15.1-1 DECT Registration

ATTRIBUTE	REMARK	RANGE	DEFAULT
Park Code	PARK (Portable Access Rights Key) Code : Unique System Id entered at DECT handset subscription to identify the system. To assign a PARK code, enter code and click [SAVE].	14 digits	
AC Code	Authentication Code entered at DECT handset to verify subscription. To assign AC Code, enter AC value and click [SAVE].	Up to 8 digits	
DECT Subscribe Enable	Enables the system to accept subscription from a DECT handset, Figure 3.5.15.1-1.		
Desired Station	Desired station number for the wireless DECT handset		

Type of Phone	Several types of handsets may be selected including type 3 for the GDC-400H.	GDC-400H: 3	3
	Press [SEND] after entering the number and type.		
DECT Unsubscribe	Terminates the subscription for a DECT handset, Figure 3.5.15.1-2.		
Station Number	Enter the registered station number and click [SEND], the subscription is terminated and the wireless DECT handset will no longer be serviced.	Station number	
DECT Mobility	When a DECT handset is registered at multiple systems that are networked, calls can be routed over the network to the DECT handset location, Figure 3.5.15.1-3		
Station Number	Enter the registered station number, select Mobility ON or OFF and click [SEND].	Station number	
Registered Stations	Displays all registered DECT handsets, Figure 3.5.15.1-4.		

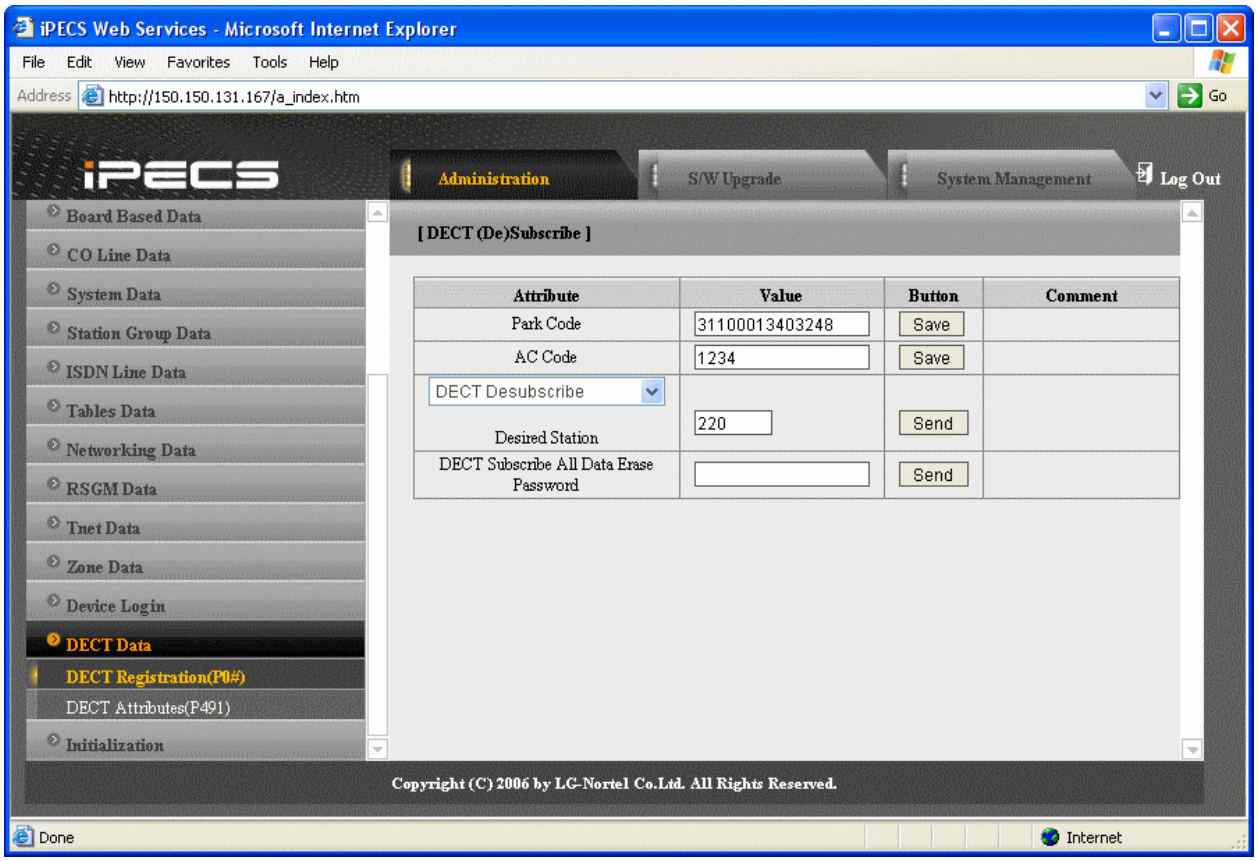


Figure 3.5.15.1-2 End Subscription Pull down

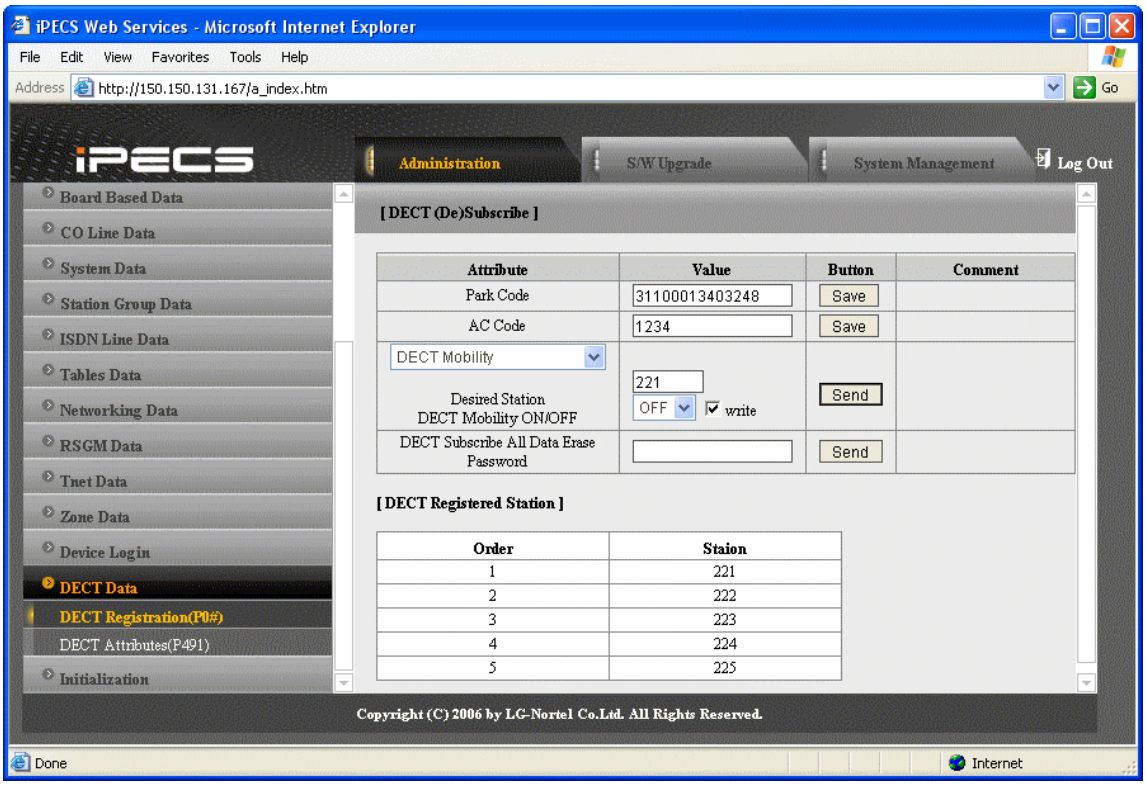


Figure 3.5.15.1-3 DECT Mobility pull down

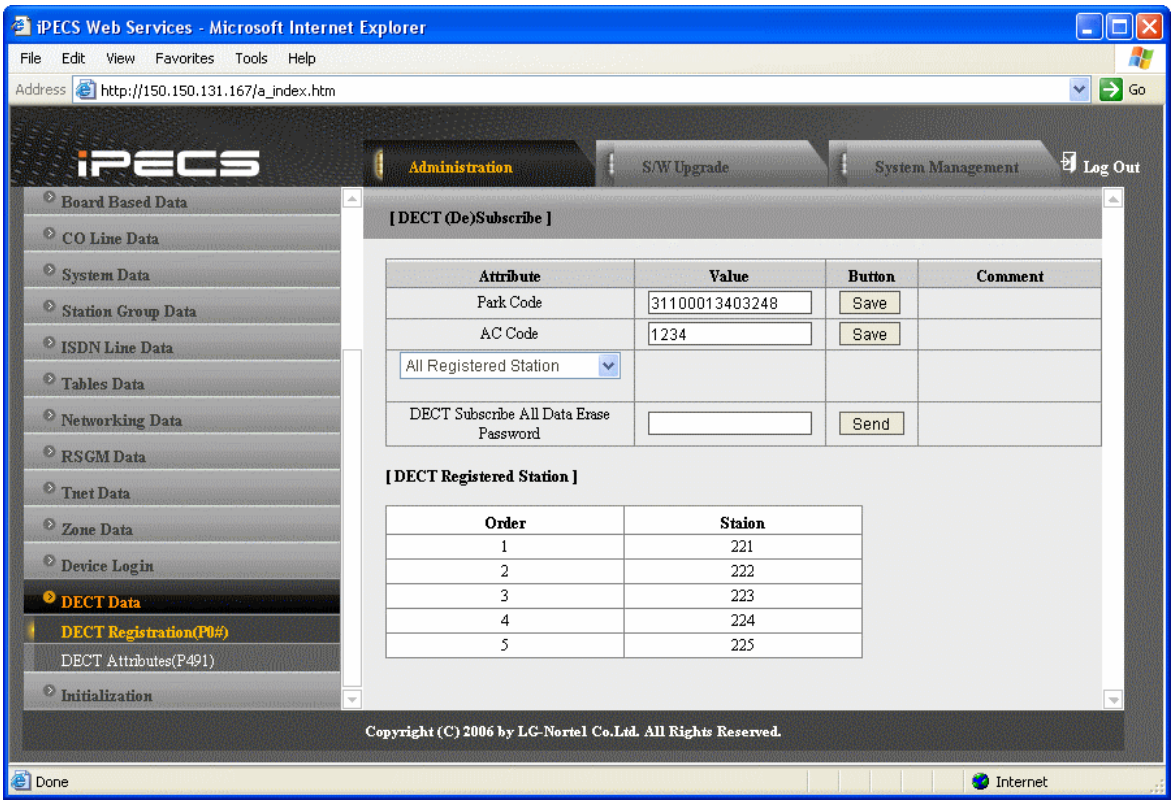


Figure 3.5.15.1-4 All Registered Station pull down

3.5.15.2 DECT ATTRIBUTES

Re: **PGM CODE** 491

Selecting the DECT Attributes returns the DECT ATTRIBUTES input page, Figure 3.5.15.2-1.

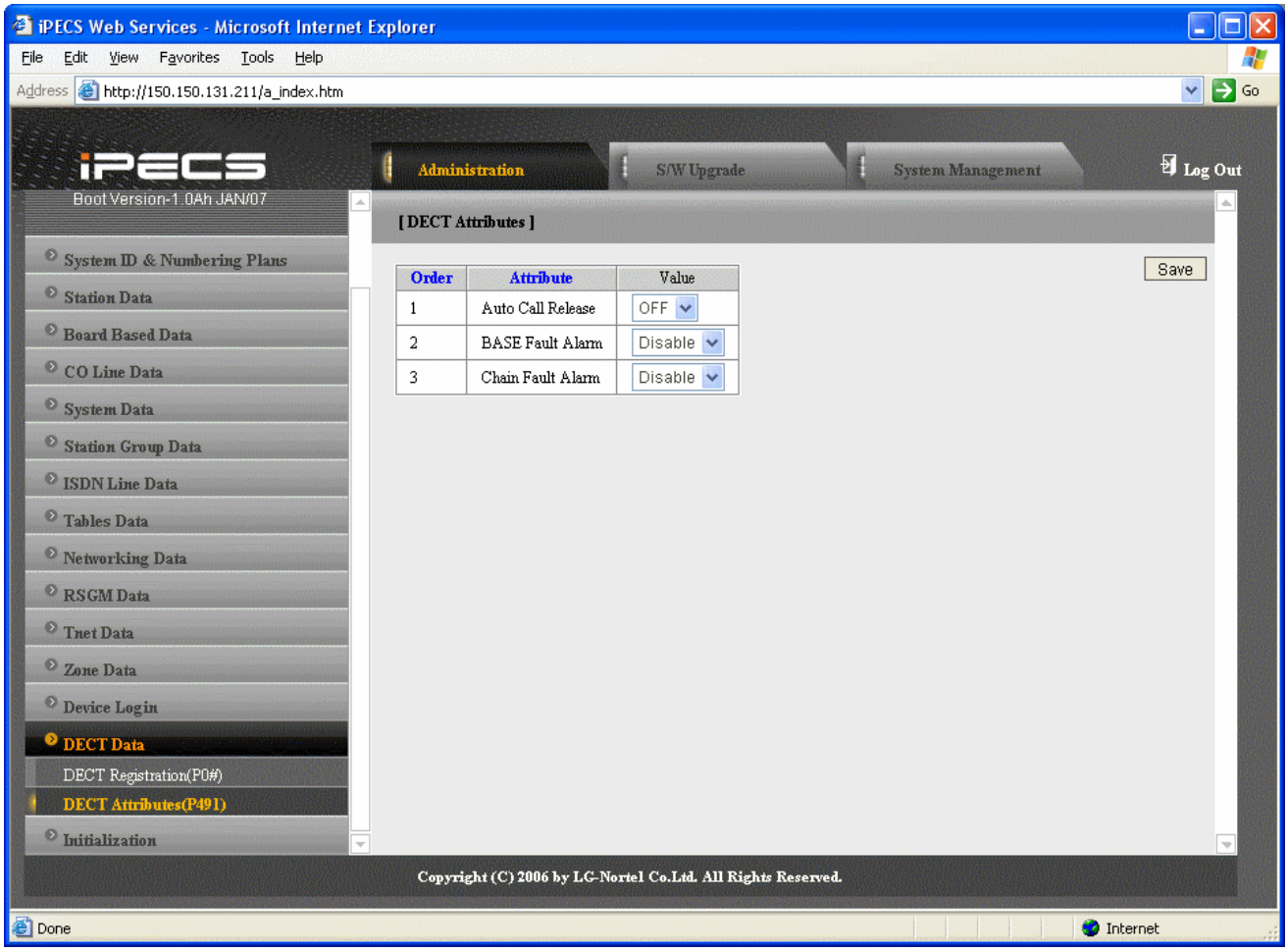


Figure 3.5.15.2-1 DECT ATTRIBUTES

DECT Attributes define functions associated with the DECT equipment and operation as shown in Table 3.5.15.2-1.

Table 3.5.15.2-1 DECT Attributes

ATTRIBUTE	REMARK	RANGE	DEFAULT
Auto Call Release	If enabled, when the other party of an active internal call disconnects, the GDC-400H returns to idle .	0: OFF 1: ON/	OFF
Base Fault Alarm	If enabled, DECT Base station (GDC-400B) alarms are sent to the Attendant.	0: Disable 1; Enable	Disable
Chain Fault Alarm	If enabled, WTIM chain fault alarms are sent to the Attendant.	0: Disable 1; Enable	Disable

3.6 FILE UPLOAD & REMOTE UPGRADE

The iPECS systems employ a NAND based memory file system thus, html, MFIM upgrade and iPECS appliance image files can be uploaded. All of the iPECS series modules can be upgraded by remote access. Selecting S/W Upgrade from the main Web screen returns the Appliance Version page and sub-menus as shown in Figure 3.6-1.

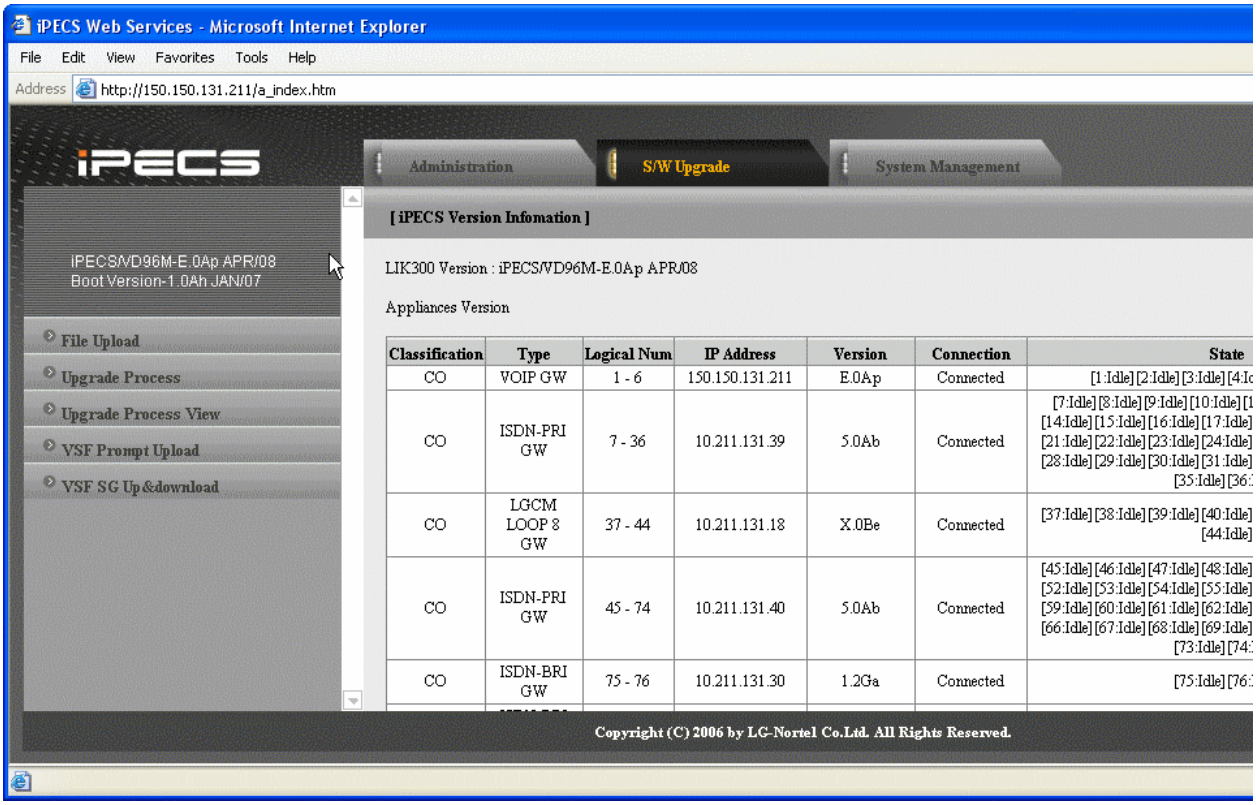

iPECS Web Services - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/a_index.htm
iPECS
Administration
S/W Upgrade
System Management
[iPECS Version Infomation]
iPECS/VD96M-E.0Ap APR/08
Boot Version-1.0Ah JAN/07
LIK300 Version : iPECS/VD96M-E.0Ap APR/08
Appliances Version
File Upload
Upgrade Process
Upgrade Process View
VSF Prompt Upload
VSF SG Up&download
Classification Type Logical Num IP Address Version Connection State
CO VOIP GW 1 - 6 150.150.131.211 E.0Ap Connected [1:Idle] [2:Idle] [3:Idle] [4:Id
CO ISDN-PRI GW 7 - 36 10.211.131.39 5.0Ab Connected [7:Idle] [8:Idle] [9:Idle] [10:Idle] [1 [14:Idle] [15:Idle] [16:Idle] [17:Idle] [21:Idle] [22:Idle] [23:Idle] [24:Idle] [28:Idle] [29:Idle] [30:Idle] [31:Idle] [35:Idle] [36:
CO LGCM LOOP 8 GW 37 - 44 10.211.131.18 X.0Be Connected [37:Idle] [38:Idle] [39:Idle] [40:Idle] [44:Idle]
CO ISDN-PRI GW 45 - 74 10.211.131.40 5.0Ab Connected [45:Idle] [46:Idle] [47:Idle] [48:Idle] [52:Idle] [53:Idle] [54:Idle] [55:Idle] [59:Idle] [60:Idle] [61:Idle] [62:Idle] [66:Idle] [67:Idle] [68:Idle] [69:Idle] [73:Idle] [74:
CO ISDN-BRI GW 75 - 76 10.211.131.30 1.2Ga Connected [75:Idle] [76:
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Figure 3.6-1 File Upload & Remote Upgrade

There are two types of upgrade images: application and kernel image. If both are required, upgrade the application then the kernel.

The VSF is part of the MFIM and VSF prompts are upgraded by uploading prompt files to the MFIM. VMIM prompts are upgraded by direct upload of prompt files to the VMIM.

3.6.1 File Upload

From the File Upload page, Figure 3.6.1-1 File Upload, select files to upload to the system's memory and click the Upload button. The file is sent to the system's memory, saved and automatically loaded upon a system reset or restart. Html image files are extracted and previous HTML files are deleted at completion of the upload process. New VSF prompt files are also available immediately upon successful uploaded.

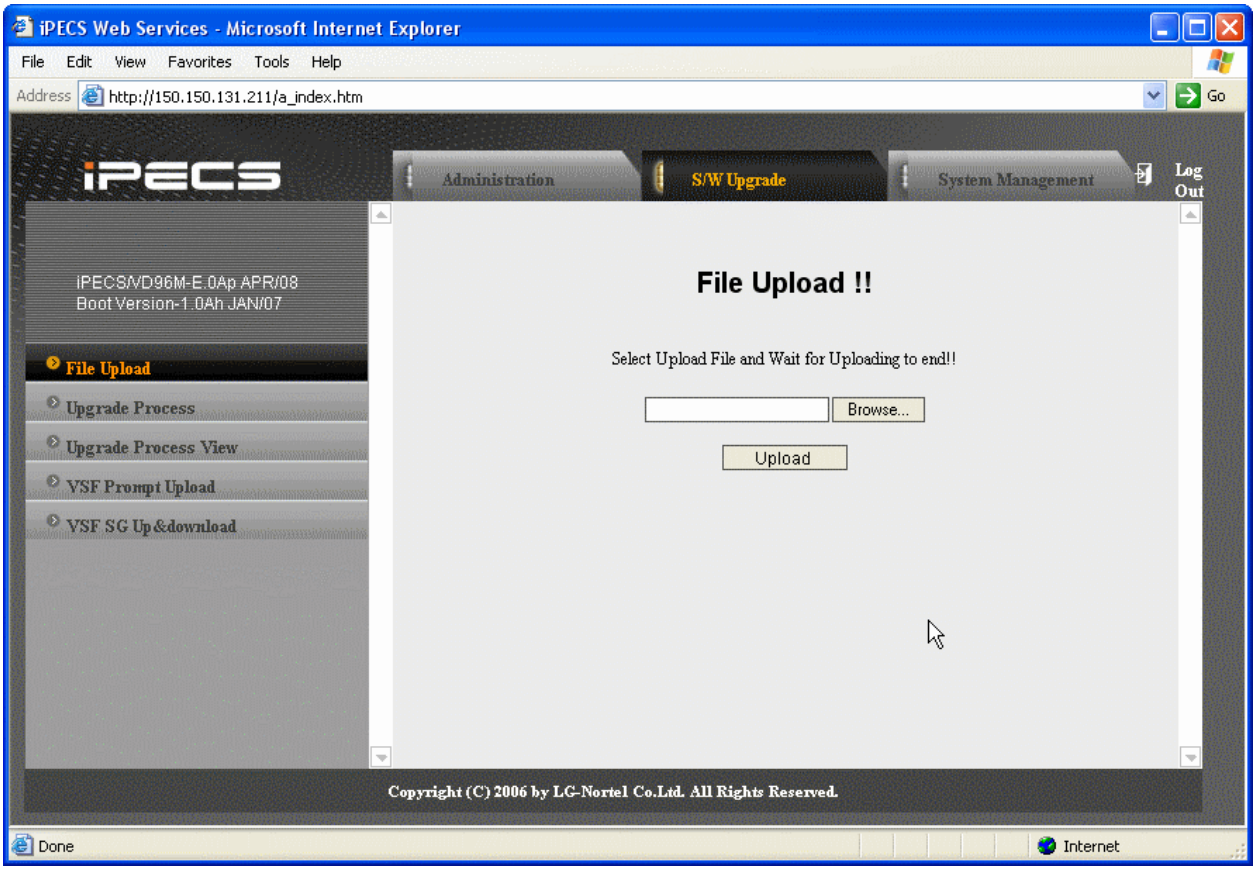

Figure 3.6.1-1 File Upload

* If file upload succeeds, a success page will be displayed.

3.6.2 Upgrade Process

If the iPECS Appliance image is uploaded, the appliances of the type for which an image was uploaded will be displayed and can be selected to upgrade, as shown in Figure 3.6.2-1 Upgrade Process. Select the desired appliance and click Upgrade, the upgrade process will start and a progress screen will be displayed. Note if the Appliance is already in the process of an upgrade, Figure 3.6.2-2 Upgrade Process Working is displayed to indicate the upgrade in process.

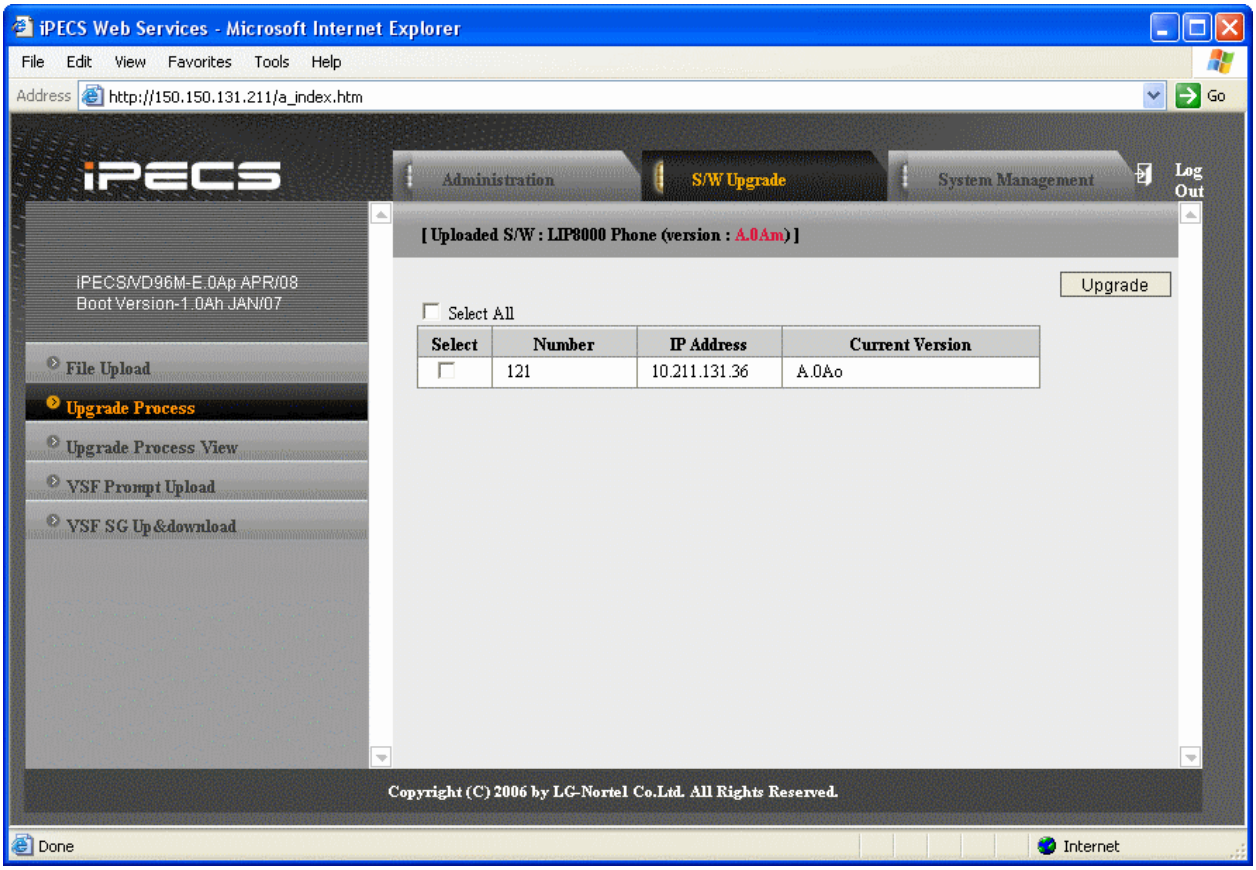

Figure 3.6.2-1 Upgrade Process

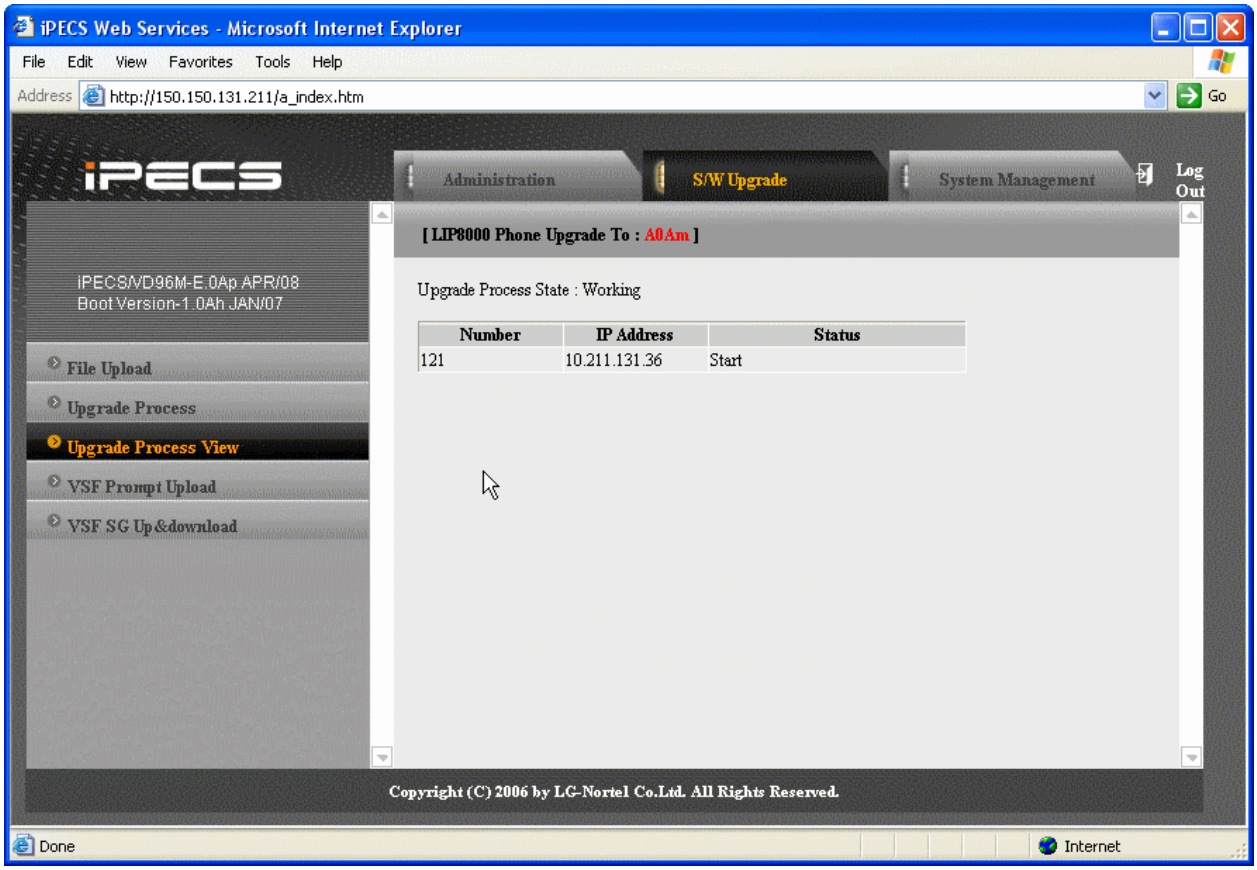

Figure 3.6.2-2 Upgrade Process Working

3.6.3 Upgrade Process View

The Upgrade Process View provides a status window; refer to Figure 3.6.3-1 Upgrade Process View, for Module and terminal upgrade activity in process.

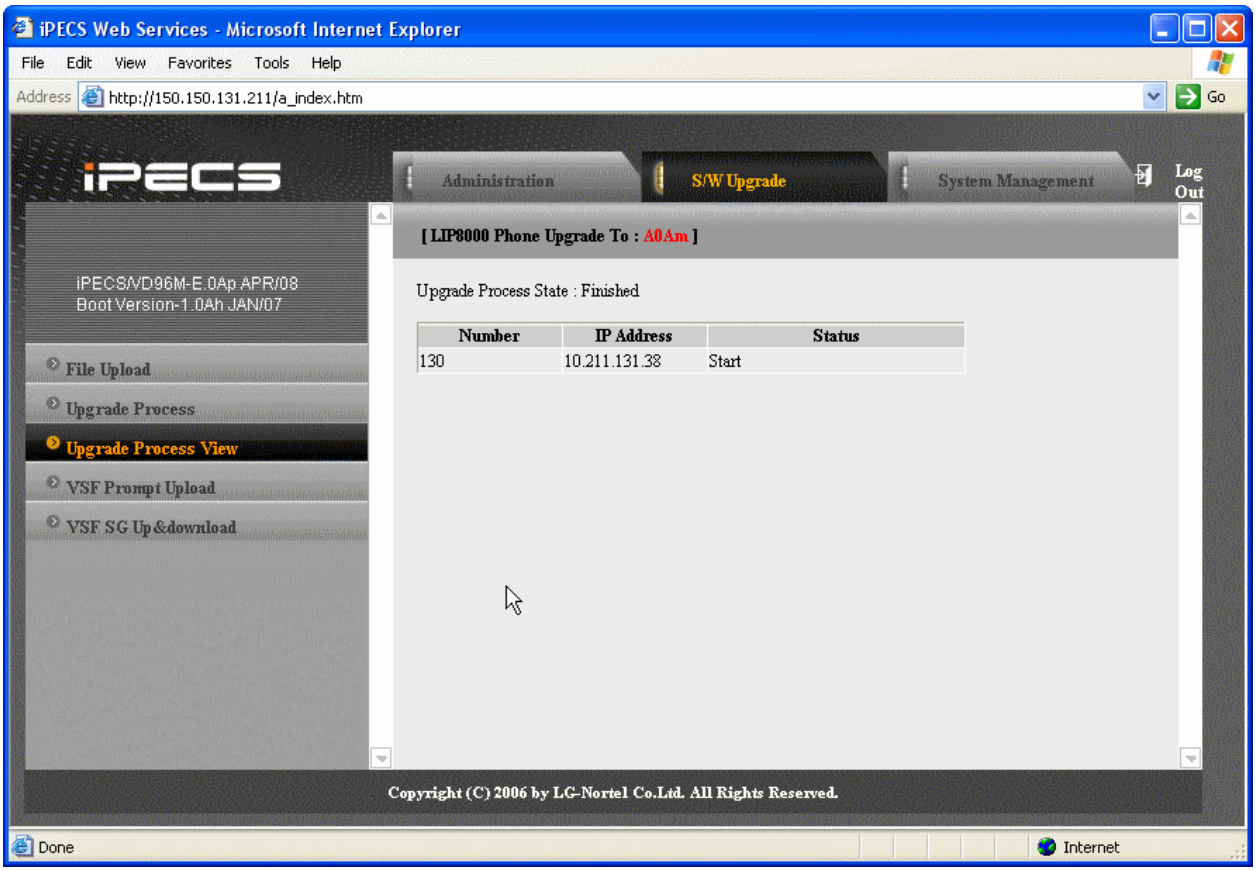

Figure 3.6.3-1 Upgrade Process View

3.6.4 VSF Prompt Upgrade View

The VSF Prompt Upgrade View provides a status window; refer to Figure 3.6.4-1 VSF Prompt Upgrade Process View, for VSF prompt upgrade activity in process. Note that up to three prompt files, one for each supported language can be uploaded to the VSF or VMIM.

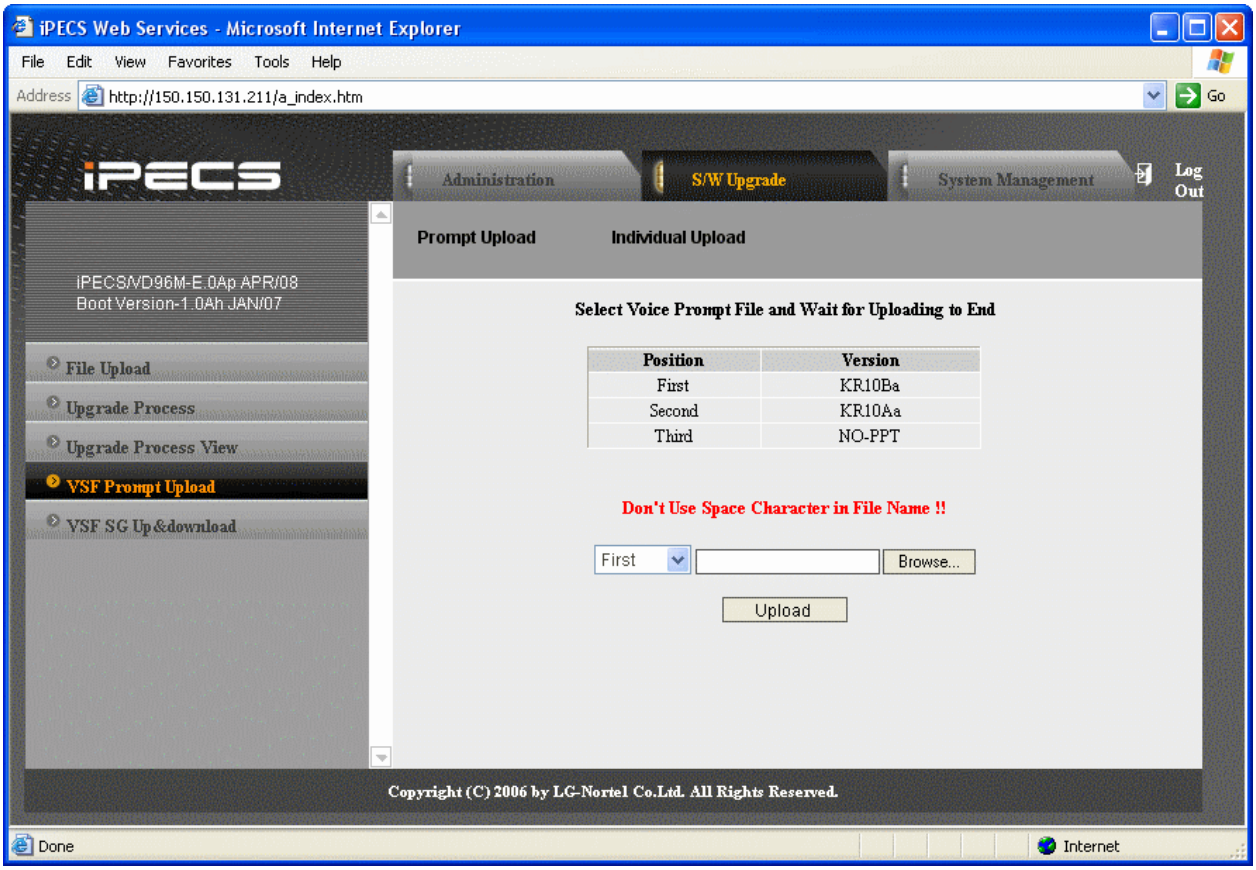

Figure 3.6.4-1 VSF Prompt Upgrade Process View

3.6.5 VSF System Greeting Up & Download View

The following are screens associated with Upload and download of VSF prompts and Greetings.

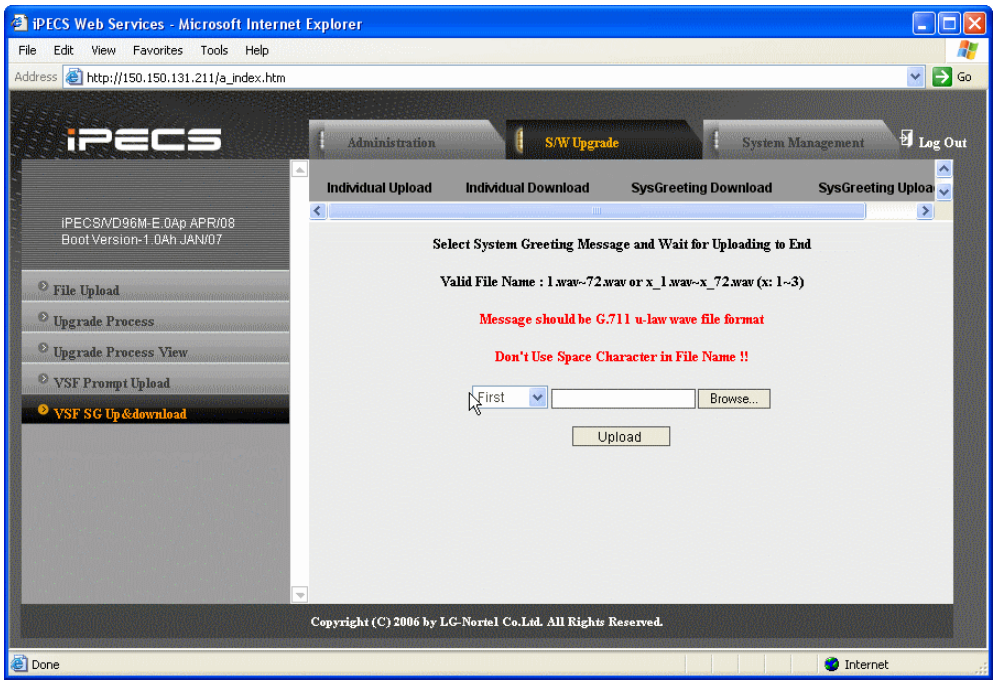

Figure 3.6.5-1 VSF Prompt Individual upload View

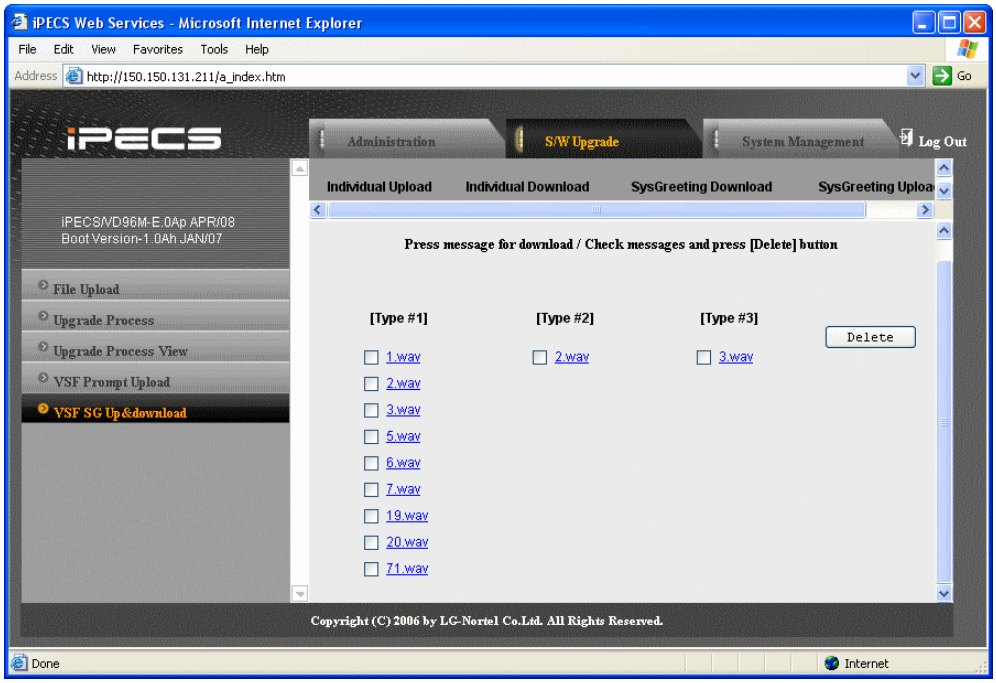

Figure 3.6.5-2 VSF Prompt Individual download View

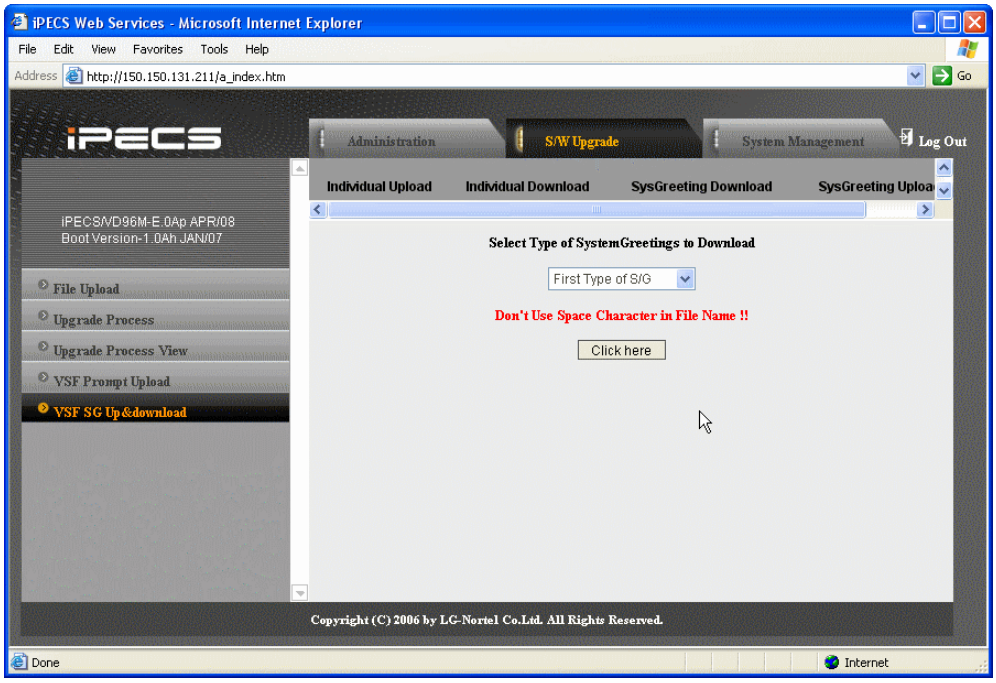

Figure 3.6.5-3 VSF Prompt System Greeting download View

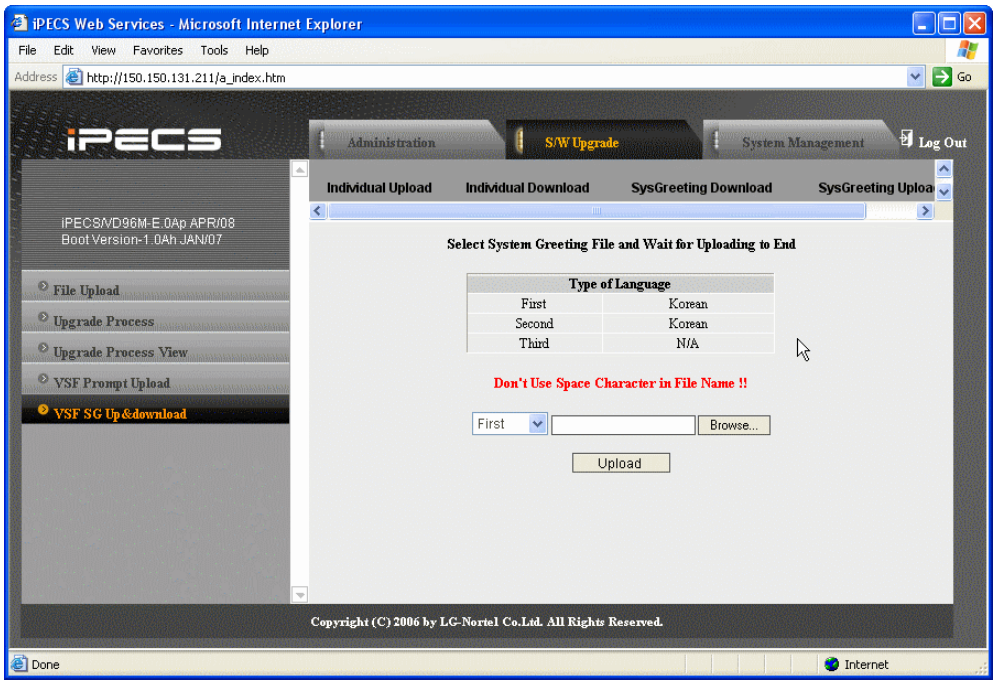

Figure 3.6.5-4 VSF Prompt System Greeting upload View

3.6.6 iPECS System Upgrade Process

3.6.6.1 iPECS Software Full Upgrade Sequence

The following shows the order in which the upgrade process proceeds and firmware files for iPECS and modules. Note the xxxx in the ROM file names indicates the version number of the file.

<MFIM Upgrade Process>

1) Upload MFIM application image

IPECS-Micro

GS91Mxxxx (xxxx indicates the version)

IPECS-50

GS92Mxxxx (xxxx indicates the version)

iPECS-50B

GS93Mxxx (xxxx indicates the version)

MFIM-100/300/600/1200 application image:

GS/95/96/97/98Mxxxx.rom (xxxx indicates the version)

2) Restart MFIM

<Appliances Upgrade Process>

1) Upload Appliance application image to MFIM100/300/600/1200

(T2/T2U CPU)

MISC/VSF application image for MFIM:

GS71Vxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)

MISC/VSF application image for MFIME:

GS36Vxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)

BRIM2 application image for UVT:

GS71Bxxxx.rom (xxxx indicates the version)

BRIM2 application image for STG:

EU71Bxxxx.rom (xxxx indicates the version)

(MS CPU)

BRIM8 application image for UVT:

GS95Bxxxx.rom (xxxx indicates the version)

BRIM8 application image for STG:

EU95Bxxxx.rom (xxxx indicates the version)

(TI CPU)

T1PRI application image for UVT:

GS71Qxxxx.rom (xxxx indicates the version)

PRIM application image for STG:
EU71Qxxxx.rom (xxxx indicates the version)

(MS CPU)
T1PRI application image for UVT:
GS95Qxxxx.rom (xxxx indicates the version)
PRIM application image for STG:
EU95Qxxxx.rom (xxxx indicates the version)
PRIM R2 application image:
DX95Qxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)
SLTM2 application image:
GS71Sxxxx.rom (xxxx indicates the version)
(MS CPU)
SLTM8 application image:
GS95Sxxxx.rom (xxxx indicates the version)
SLTM32 application image:
EU96Sxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)
LGCM4 application image:
GS71Lxxxx.rom (xxxx indicates the version)
(MS CPU)
LGCM8 application image:
GS95Lxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)
DIDM2 application image:
GS71Ixxxx.rom (xxxx indicates the version)
(MS CPU)
DIDM8 application image:
GS95Ixxxx.rom (xxxx indicates the version)

(S2500 CPU)
VOIME application image:
GS71Txxxx.rom (xxxx indicates the version)
(MS CPU)
VOIM8 application image:
GS95Oxxxx.rom (xxxx indicates the version)
VOIM24 application image:
GS96Oxxxx.rom (xxxx indicates the version)

(MS CPU)
DTIM application image:

GS95Kxxxx.rom (xxxx indicates the version)

(MS CPU)
VMIM8 application image:
GS95Vxxxx.rom (xxxx indicates the version)

(MS CPU)
MCIM24 application image:
GS95Cxxxx.rom (xxxx indicates the version)

(T2/T2U CPU)
LIP24 application image:
GS71Pxxxx.rom (xxxx indicates the version)
(TI CPU)
LIP 70XXX application image:
GS36Pxxxx.rom (xxxx indicates the version)

LIP 8012/8024/8040L application image:
GS96Pxxxx.rom (xxxx indicates the version)

LIP 8004 application image:
GS95Pxxxx.rom (xxxx indicates the version)

---

2) Select target appliances & Upgrade application image
3) Wait until upgrade process completes.
4) Automatically restart when upgrade completes successfully

<Upgrade of Voice Prompt to VSF for iPECS-Micro/IPECS-50/100/300/600/1200>

1) Access to iPECS-Micro/iPECS-50/100/300/600 – VSF Prompt Upgrade page
2) Select First/Second/Third for multiple language voice prompt
3) Upload the proper prompt file to iPECS-Micro/iPECS-50/100/300/600/1200
   VSF prompt file:
   ??96Wxxxx.rom (?? Is nation, i.e. GS, DM, KR, etc. ; xxxx indicates the version)

<Upgrade of Voice Prompt to VMIM>

1) Access to VMIM
2) Select First/Second/Third for multiple language of voice prompt
3) Upload the proper prompt file to VMIM
   VMIM prompt file:
   ??96Wxxxx.rom (?? Is nation, i.e. GS, DM, KR, etc. ; xxxx indicates the version)

3.6.6.2 MFIM Upgrade

First, confirm previous version of MFIM, then upload the desired ROM files and reset system. If the new system database is not compatible with existing system database, it will be necessary to initialize the system database. This can be done manually using the Initialize Dip-switch located on the MFIM, refer to section 1, or using the Initialization process of section 1.3. Upgrade of the MFIM includes HTML files, a separate upload of the HTML files is not required.

3.6.6.3 Upgrade HTML Files

The system's html files in "File View" Menu, upload file and reload page. Upload time of html will take 5 ~ 10 minutes.

3.6.6.4 Appliances Upgrade (gateway Module and iPECS Phone)

Upload appliance image, and click "Upgrade process" to select upgrade appliances. If appliances are selected, click "Upgrade". The page shown in Figure 3.6.3-1 will be displayed indicating the Upload command has been sent and upgrade process is working. This page will display the Upload status. When the appliance upgrade process is successful, the status is updated to "Success". If the upgrade process fails, the process is attempted an additional three (3) times before abandoned.

3.6.6.5 Direct Appliances Upgrade

Should the above MFIM managed upgrade process fail, appliances (gateway Modules and iPECS Phones) can be upgraded directly using the appliance IP address as the upgrade destination address. Note the later may require local access.

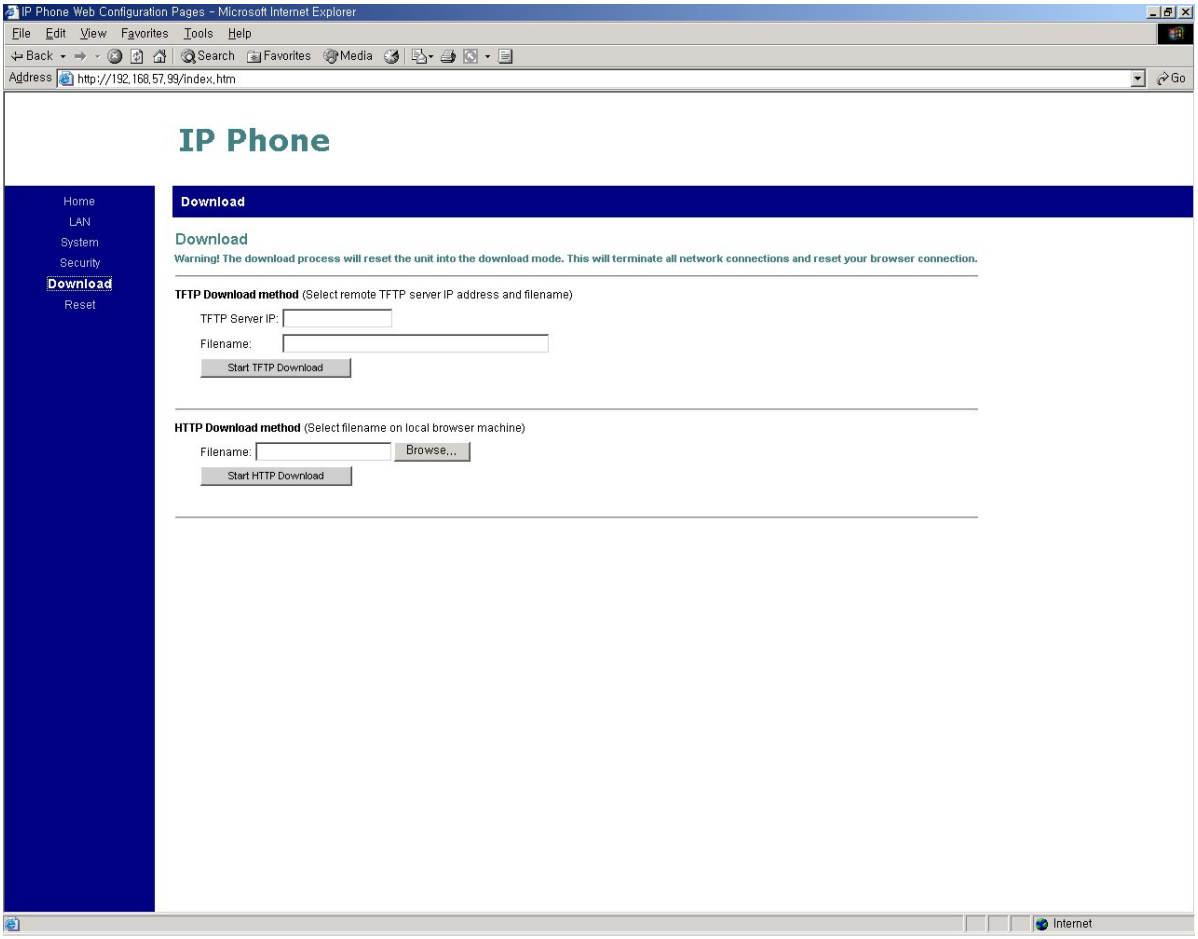

Figure 3.6.6.5-1 iPECS Phone Direct Connect Upgrade

3.7 MAINTENANCE

The System Management tab from the main screen permits download of all or portions of the system's database and downloading and viewing of SMDR data, see Figure 3.7-1.

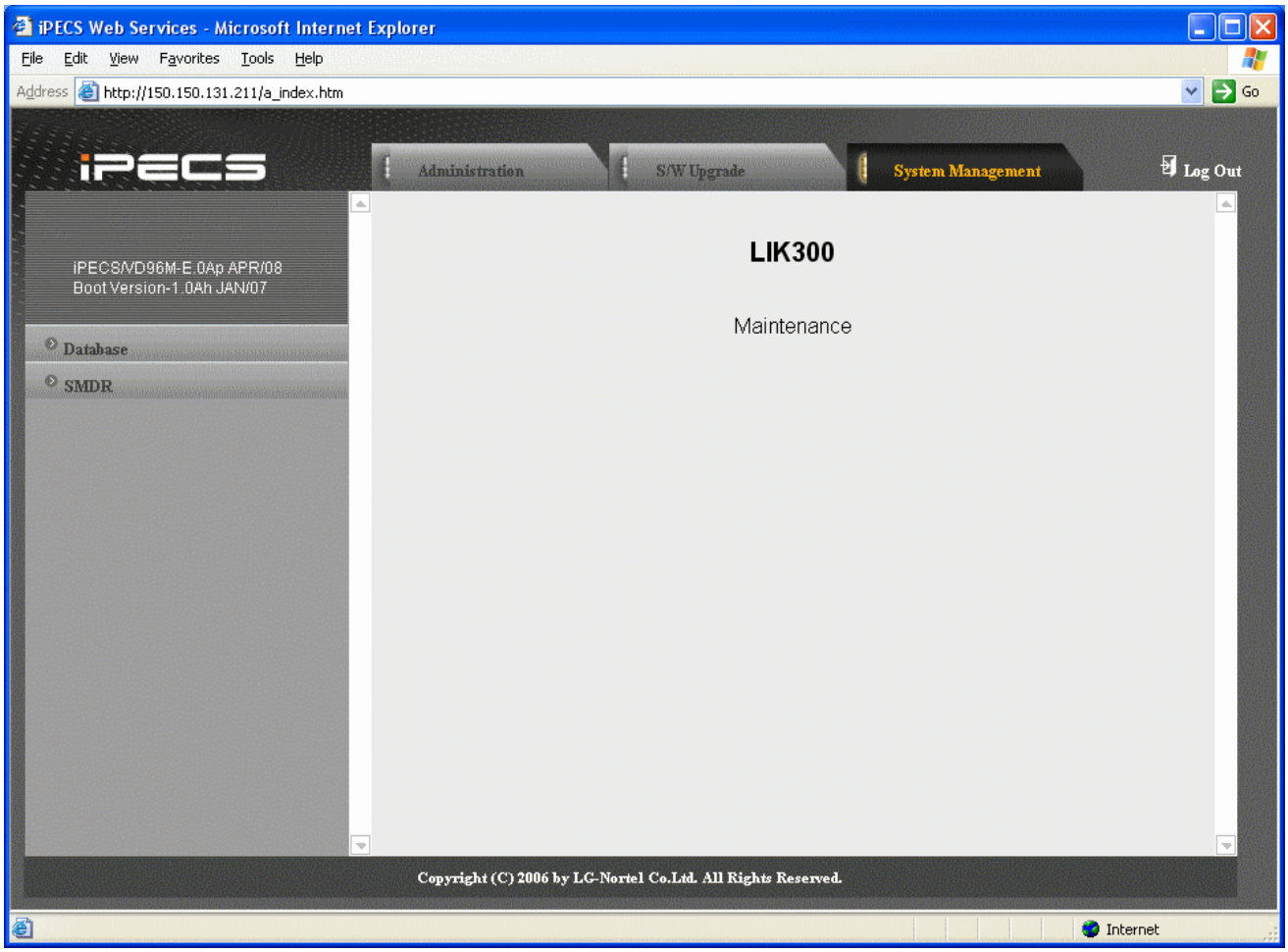

Figure 3.7-1 Maintenance

3.7.1 Database

Selecting the Database menu item will display the Database sub-menu items, showing the database selections for Download and Upload, refer to Figure 3.7.1-1.

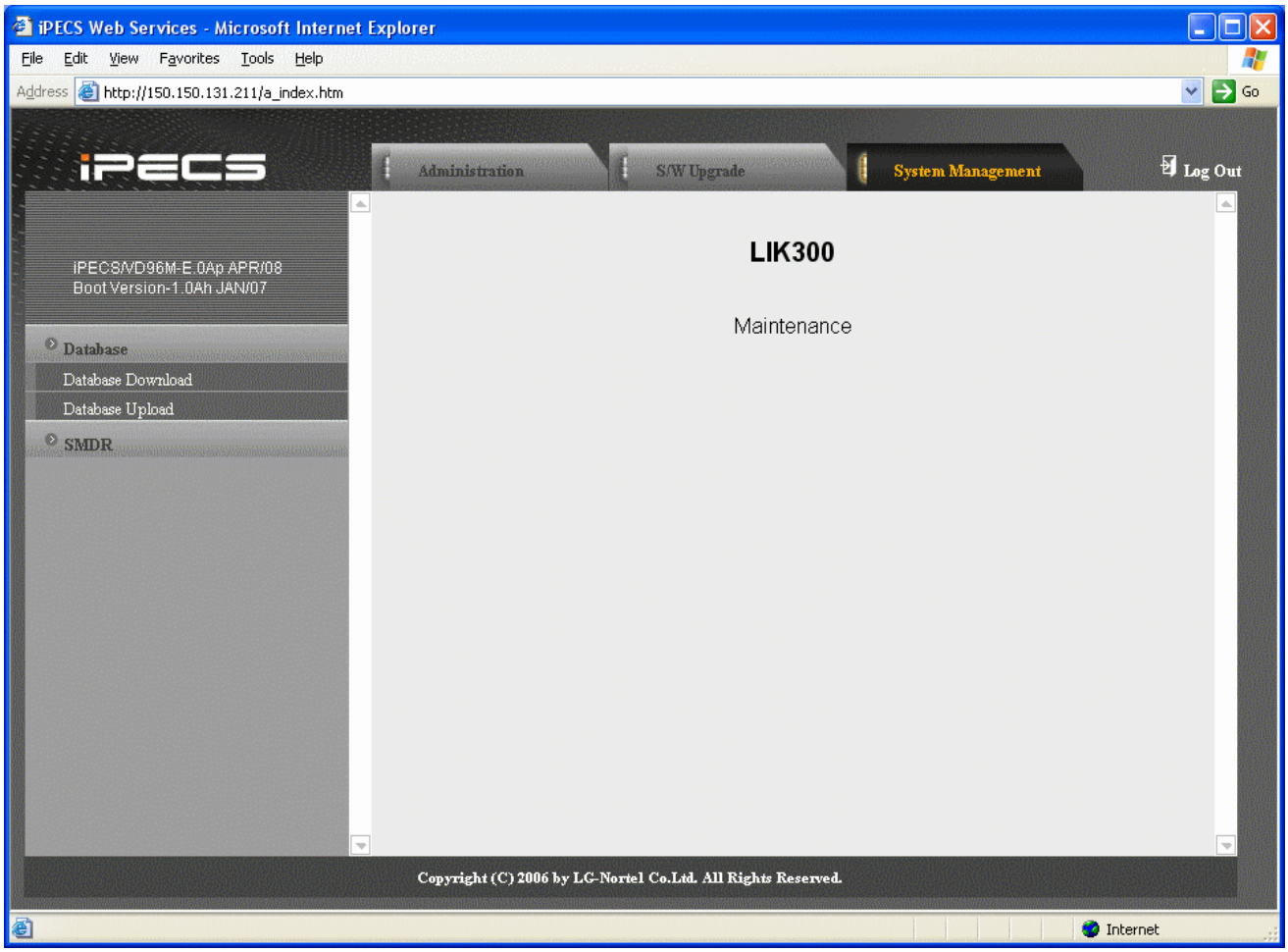

Figure 3.7.1-1 Download & Upload sub-menu

3.7.1.1 Database Download

Selecting Database Download will display the Database Download page Figure 3.7.1.1-1. Selecting this option will download the entire iPECS system database to the local PC. This also allows the database in the PC to be uploaded to an iPECS system using the file upload procedures in section 3.7.1.2.

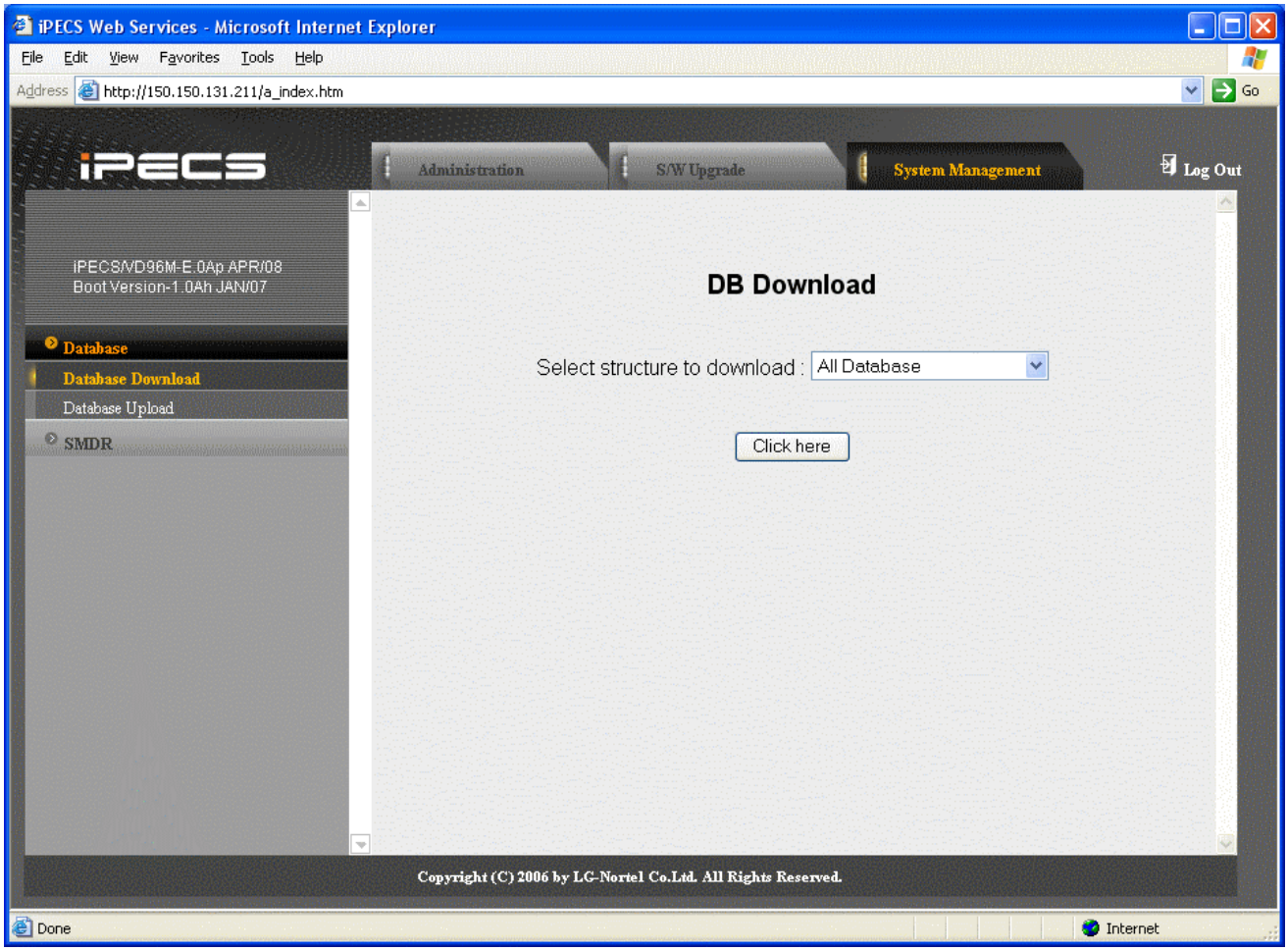

Figure 3.7.1.1-1 Database Download

Clicking on “Click Here” will present the File Download window. Files should be saved to disk. Note that this screen will appear for all download processes.

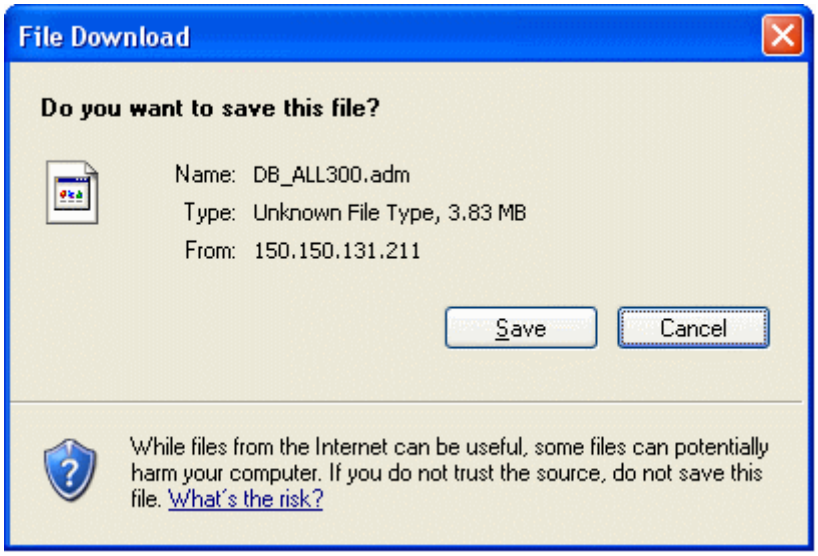
File Download
Do you want to save this file?
Name: DB_ALL300.adm
Type: Unknown File Type, 3.83 MB
From: 150.150.131.211
Save
Cancel
While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not save this file. What's the risk?

Figure 3.7.1.1-2 Database File Save dialog

3.7.1.2 Database Upload

The Database Upload selection returns the Database Upload page as shown in Figure 3.7.1.2-1. By selecting the database file desired from the local PC, the desired database can be uploaded to the iPECS system's database.

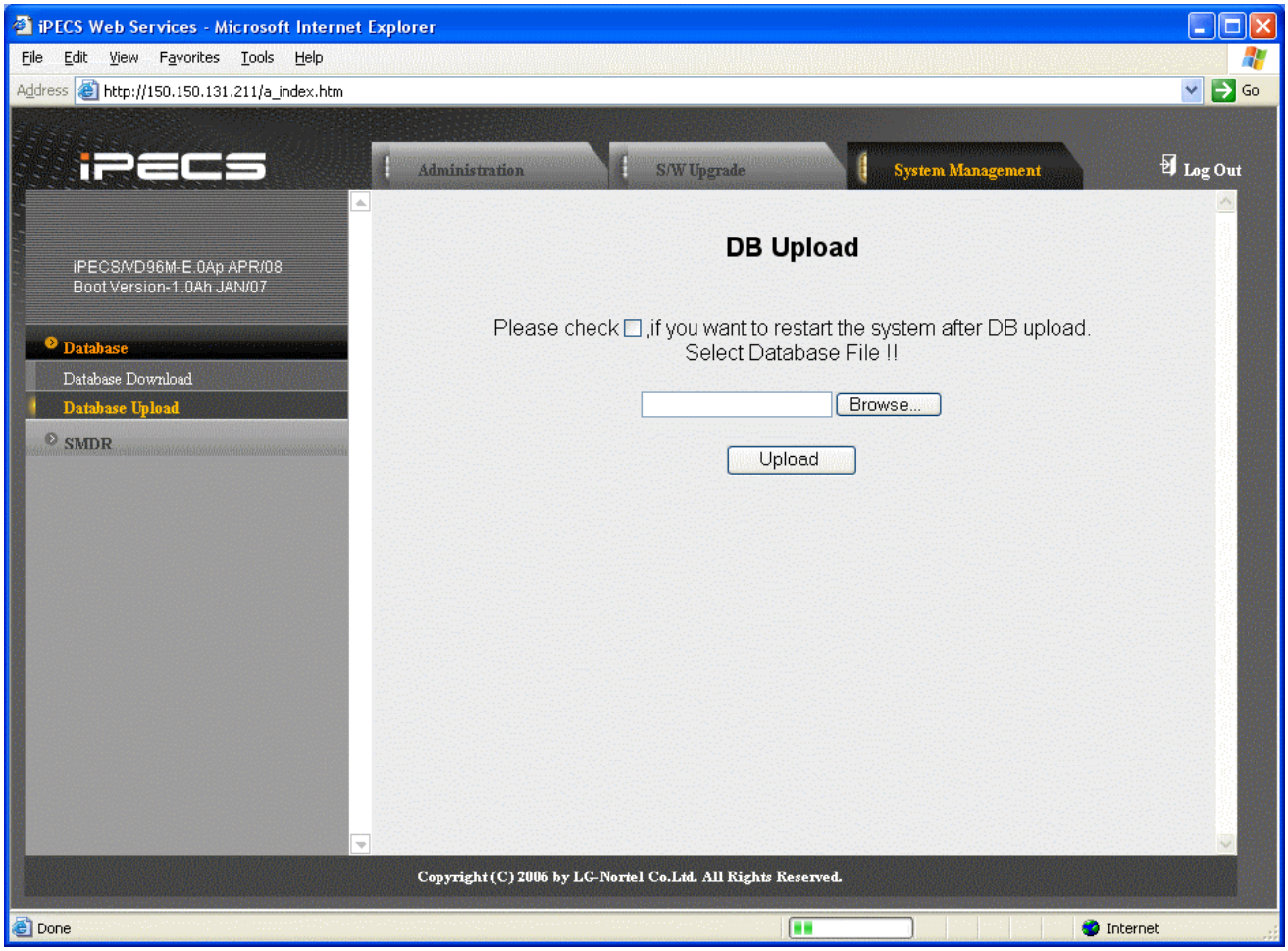

Figure 3.7.1.2-1 Database Upload

3.7.2 SMDR

The iPECS system can download SMDR data in a SYLK format file (.slk). This file can be opened under any common spreadsheet application. The system will provide a view of SMDR data for the station range entered in the Web page Figure 3.7.2-1. This page may also be employed to delete SMDR records for the station range entered.

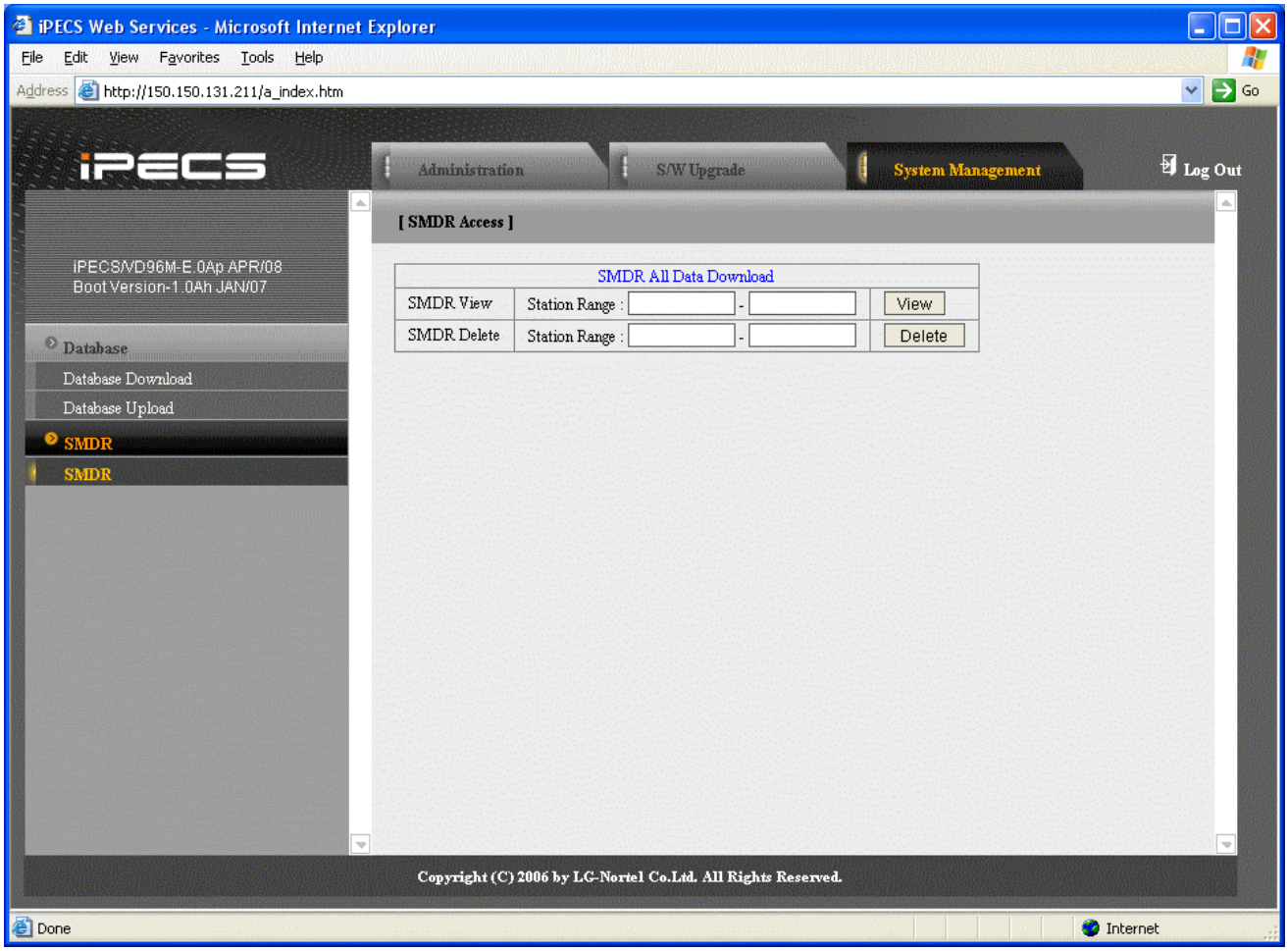

Figure 3.7.2-1 SMDR Access

3.8 STATION PROGRAM (USER PORTAL)

In Figure 3.2.3-1 Station Password page, enter a station number and password, Station Authorization code, then 'click' the Login button to access the Station Program Main Page, refer to Figure 3.8-1.

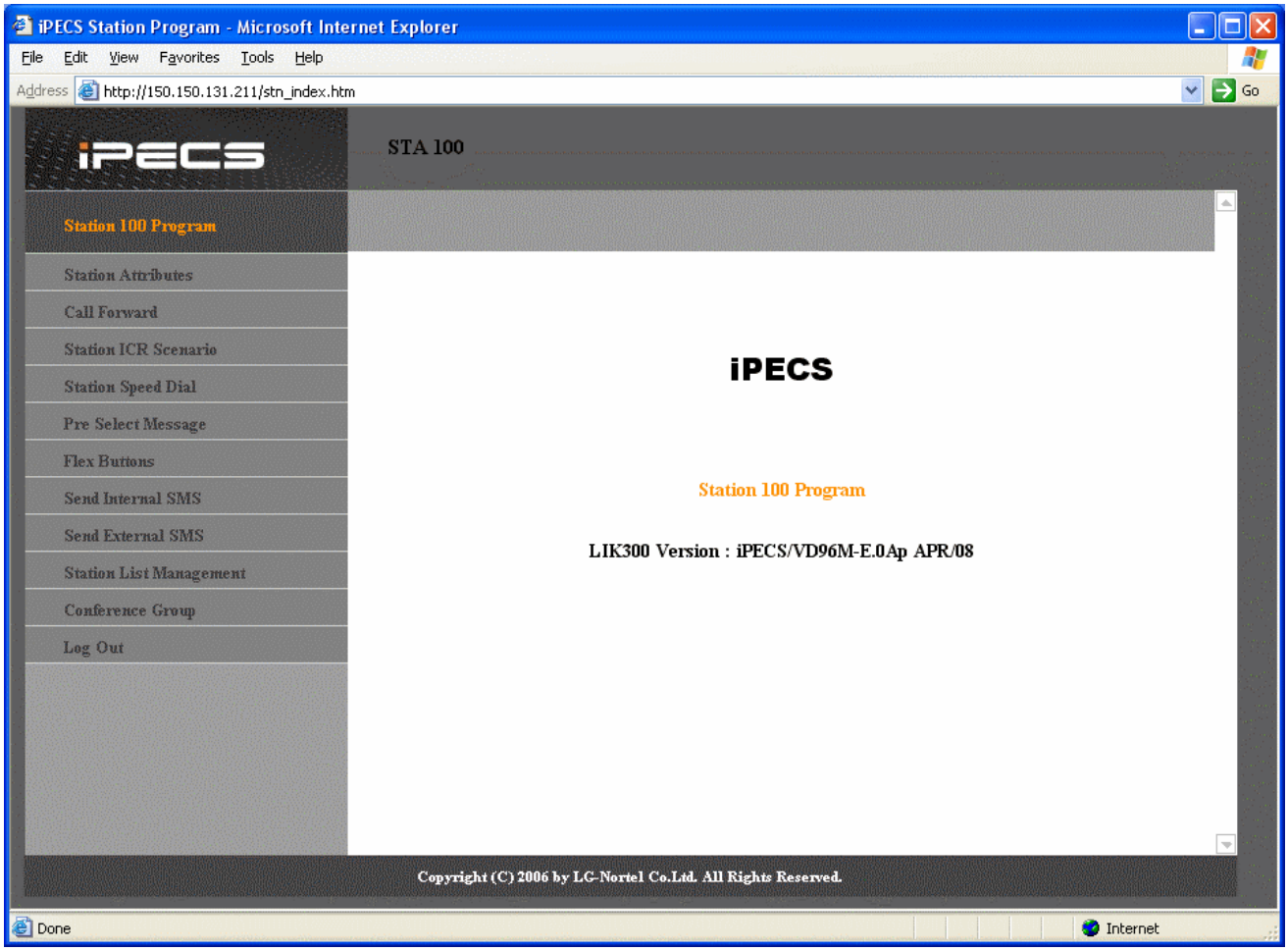

Figure 3.8-1 iPECS Station Program Main Page

In the Station Program User Portal, users can modify various station attributes, set-up call forwarding, create Station ICR scenarios, assign flexible buttons, program Station Speed dial numbers, send SMS and create conference groups. The following sections provide details on each of the available Station Program User portal Web pages.

The Station Program User portal main page has three sections,

- Station selected – Upper frame
- Web site directory & navigation section – Left frame
- Info and Entry section – Central frame

3.8.1 Station Attributes

Selecting Station Attributes will display the input entry page, Figure 3.8.1-1. Selecting the blue colored text in the Table header will sort the table based on the selected column.

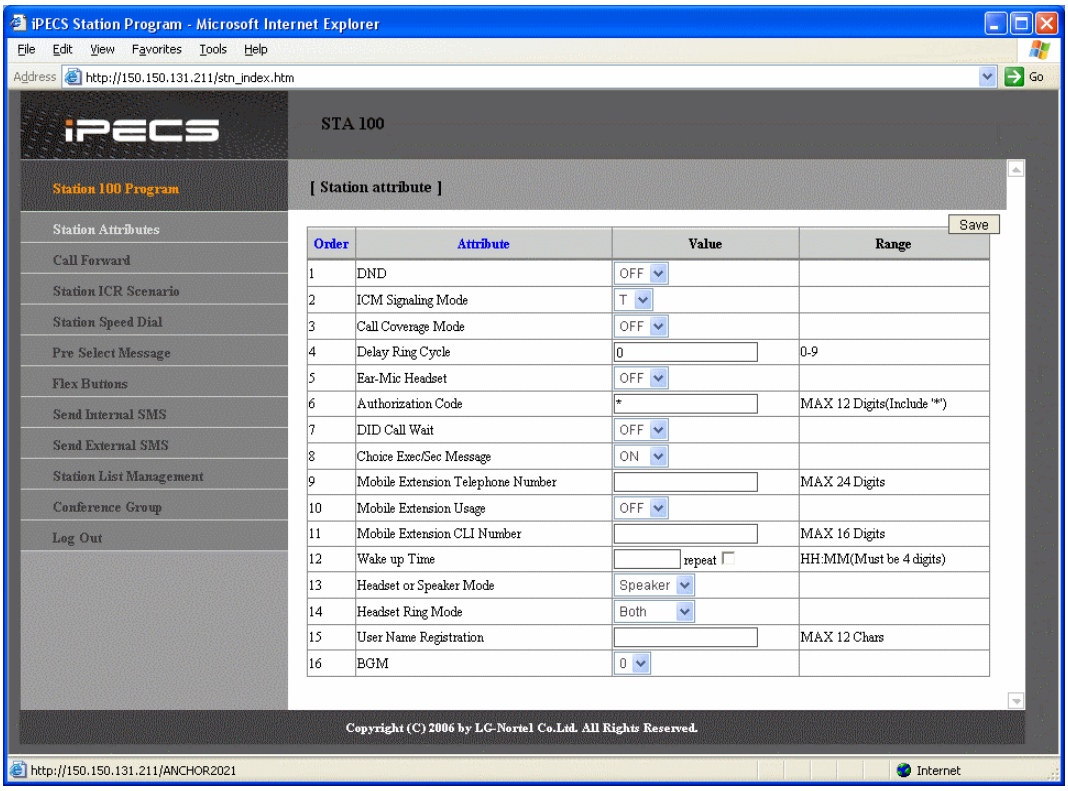

Figure 3.8.1-1 Station Attributes

Station Attributes define features and functions available to the station. Refer to Table 3.8.1-1 for a description of the features and the input required.

Table 3.8.1-1 STATION ATTRIBUTES

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
DND	Enables DND to be activated by the station.	ON OFF	OFF
ICM Signaling Mode	Selects Handsfree, Privacy or Tone ring ICM Signaling mode.	H T P	T
Call Coverage Mode	The Call Coverage feature permits an iPECS Phone user to receive ring and answer calls at other stations.	ON OFF	OFF
Call Cover Delay Ring	When a covered station rings, the **{CALL COVERAGE}** button LED will flash at the covering station and the station will receive ring (immediate or delayed, 0 to 9 ring cycles).	0~9	0
E&Mic Headset	Select E&Mic or Headset mode for New IP Phone.	1: ON 0: OFF	OFF

ATTRIBUTE	DESCRIPTION	RANGE	DEFAULT
Authorization Code	Authorization codes are employed to control access to the system resources and facilities. Walking COS, CO/IP Group access DISA callers and certain Call Forward types may require the input of a valid Authorization code. Codes up to 12 digits may be entered into the system database		N/A
DID Call Wait	When a busy station receives a DID call, the call may queue to the station instead of receiving busy tone. With DID Call Wait, the caller hears Ring-back and the user sees the CO line button LED flash.	ON OFF	ON
Choice Exec/Sec Message	When a call is forward to the Secretary of an Executive/Secretary pair, messages can be left for the Executive (ON) or Secretary (OFF).	1: ON 0: OFF	ON
Mobile Extension Tel number	Telephone number or CLI of the Mobile extension.		Not assigned
Mobile Extension Use	The user may be allowed to activate the mobile extension feature.	ON OFF	OFF
Mobile Extension CLI	When the mobile Telephone number and CLI do not match, the CLI entered here is used to authorize incoming calls from the mobile.		Not assigned
Wake up Time	The user can register a wake up time		
Headset or Speaker Mode	Selects Speakerphone mode or Headset mode	Speaker Headset	ON
Headset/Spkr Ring Mode	Selects device to receive incoming ring signals, Speaker, Headset or Both.	Speaker Headset Both	SPEAKER
User Name Registration	Enables user name entry. The name is displayed on the LCD of iPECS Phones.	Max 12 Chars	
BGM	Enables background music. The BGM is played while the iPECS phone is idle.	0-3 Or 0-2	0
UMS MSG – SMTP Mail Server Address	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the user's e-mail mail server for the notification.	IP v4 address Or Mail server name	
UMS MSG – User Mail Address	The VSF and VMIM include notification of new messages to the user's voice mail. This field defines the e-mail address to notify when a new message is received at the VSF or VMIM.	e-mail address	
Station Forward No Answer Timer	This timer determines the duration the station will ring prior to Ring-No-Answer Forward. This setting affects both manual and Preset Call Forward and overrides the System No answer forward timer section 3.5.5.20.	000-600 seconds	000

3.8.2 Call Forward

Selecting Call Forward will display the input entry page, Figure 3.8.2-1. On this page, the user can set Station or Preset Call Forward.

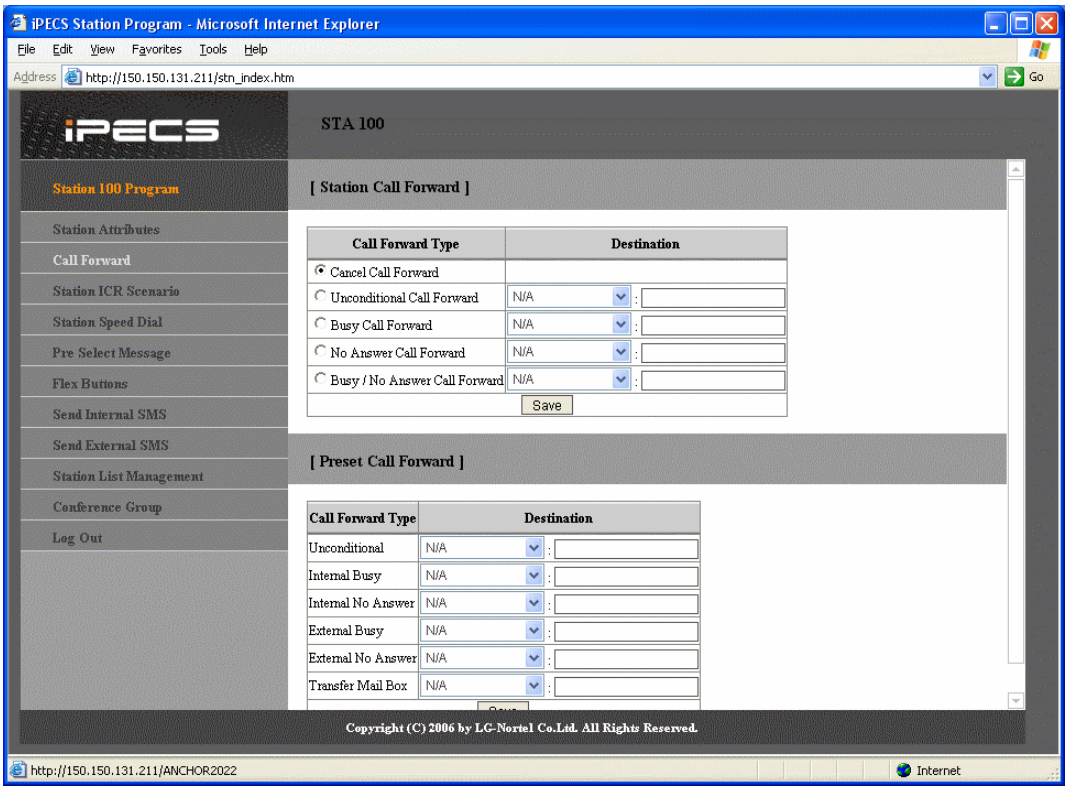

Figure 3.8.2-1 Call Forward

3.8.2.1 Station Call Forward

Stations can be programmed so that incoming calls are re-routed to other stations (local or networked), station groups, the VSF, or over a system CO/IP line (Off-Net). Call Forward can be separately assigned UNCONDITIONAL, BUSY, NO ANSWER, BUSY/NO ANSWER, Attendant OFF-PREMISE forwarding to any station, hunt group or system speed dial bin (Off-net). In the portal, users can establish forwarding scenarios under the Station ICR selection.

3.8.2.2 Preset Call Forward

Stations can be programmed so that incoming CO and Intercom calls are forwarded to a preset station or station group. This allows an external or internal call to initially ring at a station and forward to a pre-determined destination. Preset Forward can be separately assigned UNCONDITIONAL, INTERNAL BUSY, INTERNAL NO ANSWER, EXTERNAL BUSY, EXTERNAL NO ANSWER preset forwarding to any station, hunt group or system speed dial bin (off-net). As a default, no Preset Call Forward is assigned. Also, for the Transfer to Mailbox, enter the Station Group number of the Voice Mail group (external VM, VSF or Feature Server Voice Mail group). This permits users to send calls directly to the desired Voice Mail-Box.

3.8.3 Station ICR Scenario

Selecting Station ICR Scenario displays the input entry page, Figure 3.8.3-1.

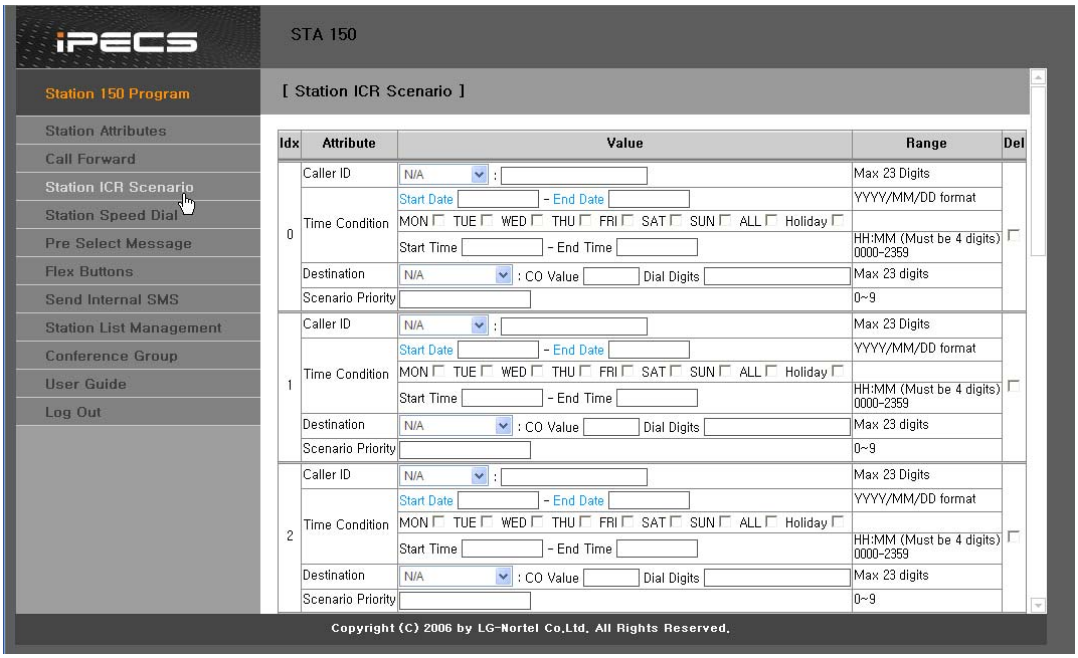

Figure 3.8.3-1 Station ICR Scenario

Station ICR is an extension of call forward where the user enters scenarios to define the call forward feature. Each station has ten (10) routing scenarios, which define conditions for routing a user's incoming calls Each scenario may define time of day, day of week, date, caller ID and destination for incoming calls. In addition, the scenarios may be prioritized, calls are routed to the destination in highest priority matching scenario.

3.8.4 Station Speed Dial

Selecting Station Speed Dial will display the input entry page, Figure 3.8.4-1.

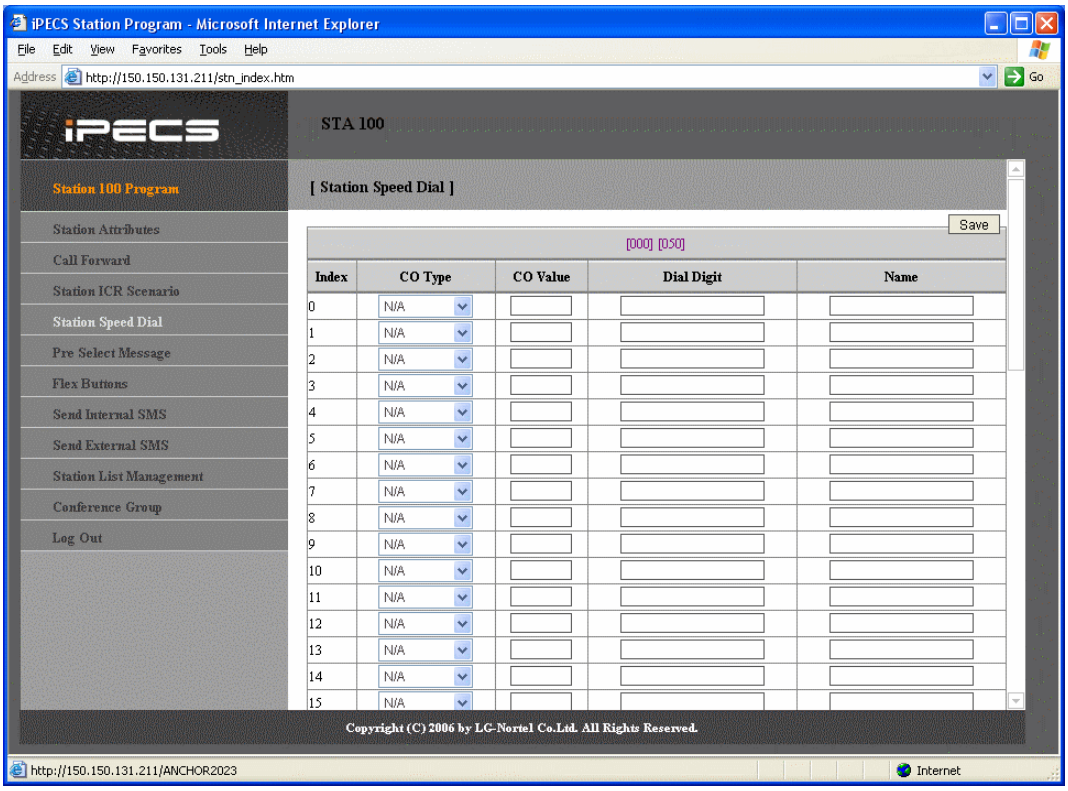

Figure 3.8.4-1 Station Speed Dial

Each station can store commonly dialed numbers for easy access using Station Speed Dial bins. With the iPECS-Micro, IPECS-50 and MFIM100, each station has access to 20 Speed Dial numbers and, with the MFIM300 or MFIM600 or MFIM1200 each station has access to 100 Speed Dial numbers. Each Speed Dial number can be up to 48 characters in length and may include special instruction codes for analog and ISDN lines. The CO Line used with the Speed Dial number and a name can be entered.

3.8.5 Pre-selected Message

Selecting Pre-selected Message will display the input entry page, Figure 3.8.5-1.

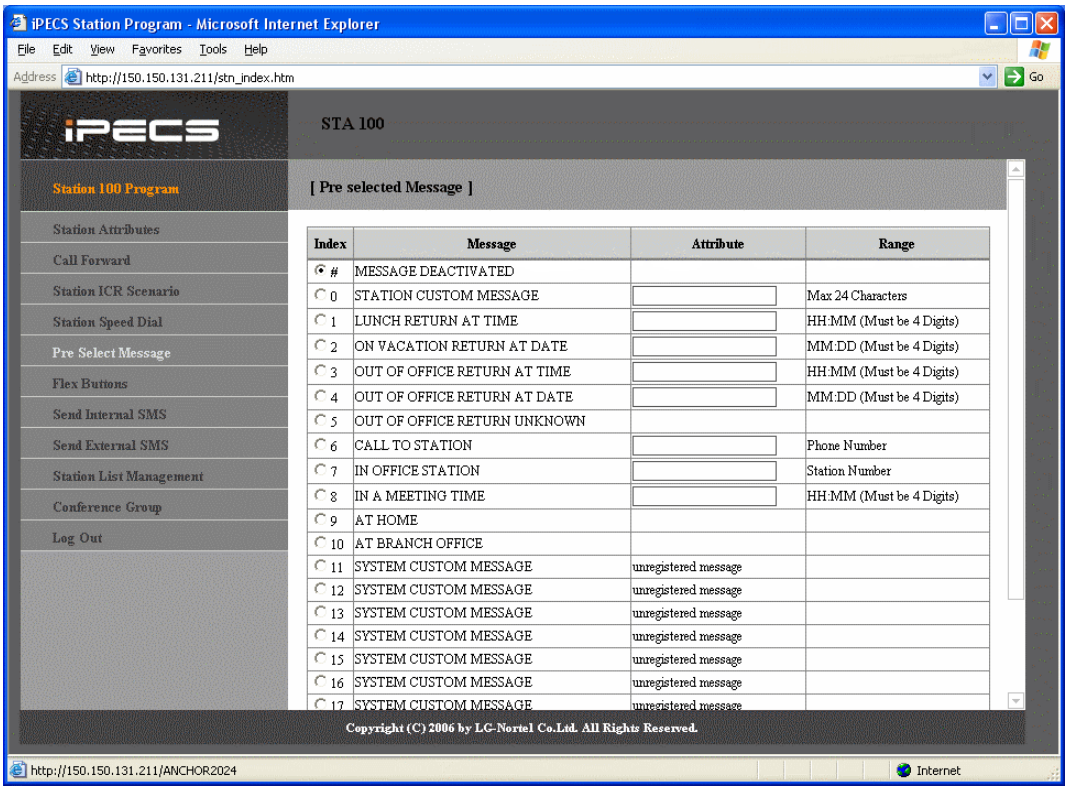
iPECS Station Program - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://150.150.131.211/stn_index.htm
Go
iPECS
STA 100
Station 100 Program
[Pre selected Message]
Station Attributes
Call Forward
Station ICR Scenario
Station Speed Dial
Pre Select Message
Flex Buttons
Send Internal SMS
Send External SMS
Station List Management
Conference Group
Log Out
Index | Message | Attribute | Range
MESSAGE DEACTIVATED
0 STATION CUSTOM MESSAGE | Max 24 Characters
1 LUNCH RETURN AT TIME | HH:MM (Must be 4 Digits)
2 ON VACATION RETURN AT DATE | MM:DD (Must be 4 Digits)
3 OUT OF OFFICE RETURN AT TIME | HH:MM (Must be 4 Digits)
4 OUT OF OFFICE RETURN AT DATE | MM:DD (Must be 4 Digits)
5 OUT OF OFFICE RETURN UNKNOWN
6 CALL TO STATION | Phone Number
7 IN OFFICE STATION | Station Number
8 IN A MEETING TIME | HH:MM (Must be 4 Digits)
9 AT HOME
10 AT BRANCH OFFICE
11 SYSTEM CUSTOM MESSAGE unregistered message
12 SYSTEM CUSTOM MESSAGE unregistered message
13 SYSTEM CUSTOM MESSAGE unregistered message
14 SYSTEM CUSTOM MESSAGE unregistered message
15 SYSTEM CUSTOM MESSAGE unregistered message
16 SYSTEM CUSTOM MESSAGE unregistered message
17 SYSTEM CUSTOM MESSAGE unregistered message
Copyright (C) 2006 by LG-Nortel Co.Ltd. All Rights Reserved.
http://150.150.131.211/ANCHOR2024
Internet

Figure 3.8.5-1 Pre-selected Message

A user can select a message to be displayed on the LCD of a calling iPECS Phone. There are ten pre-defined messages (index 1-10), several allow for auxiliary information such as a time, date or number.

A user may activate Custom Display Messaging to send a custom text message to the LCD of a calling iPECS Phone. Up to 11 Custom Messages (ten system level and one for each user) may be entered in the system database. System level Custom Messages (index 11-20) may be entered from the Attendant or Administrator's phone or via the "Admin & Maintenance" Web page. The User's Custom Message (index 0) may also be assigned from the user's phone or via the Station Program User portal Web page.

3.8.6 Flex Buttons

Selecting Flex Buttons will display the input entry page, Figure 3.8.6-1.

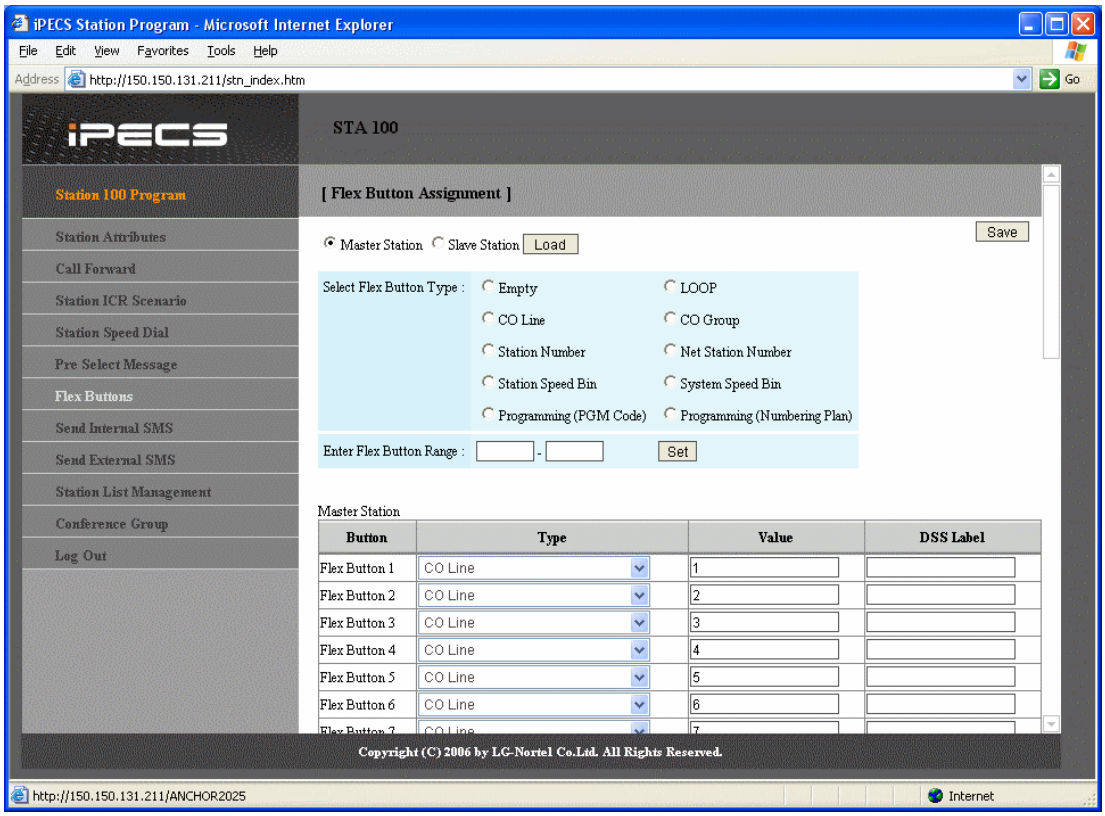

Figure 3.8.6-1 Flex Buttons

Each Flex button for each iPECS Phone/DSS Console can be assigned a function (TYPE) from the pull down menu as shown in Table 3.8.6-1. After selecting the Type for a button, enter the value, if required.

Table 3.8.6-1 FLEX BUTTON TYPE & VALUE

TYPE	VALUE				REMARK
	IPECS-Micro iPECS-50 & MFIM100	MFIM100	MFIM600	MFIM1200	
Empty	-	-			Empty (unassigned), may be defined by the user.
CO Line	IPECS-Micro 01~05 iPECS-50 &MFIM100 01~42	001~200	001~400	001~600	Assigns button to access a defined CO/IP line
CO Group	01~20	01 ~72	01~72	01~100	Assigns button to access a free line in the CO/IP Group
Loop					
Station Number	Station Number	Station Number	Station Numbers	Station Numbers	Assigns button as DSS/BLF for the assigned station number

Programming (Numbering Plan)	Num Plan Code	Num Plan Code	Num Plan Code	Num Plan Code	Assigns button to dial a code from the Flexible Numbering Plan, see Appendix B.
Programming (PGM Code)	Fixed Num Plan Code	Fixed Num Plan Code	Fixed Num Plan Code	Fixed Num Plan Code	Assigns button to perform a User Program function from the Fixed Numbering Plan, Appendix C.
Station Speed Bin	00~19	000~099	000~099	000~099	Station Speed Dial bin
System Speed Bin	200~999	2000~4999	2000~4999	20000~31999	System Speed Dial bin
Net Station Number	Network Number Table	Network Number Table	Network Number Table	Network Number Table	Refer to section 3.5.9.4 Network Numbering Plan Table

3.8.7 Internal SMS

Selecting Send Internal SMS displays the input entry page, Figure 3.8.7-1.

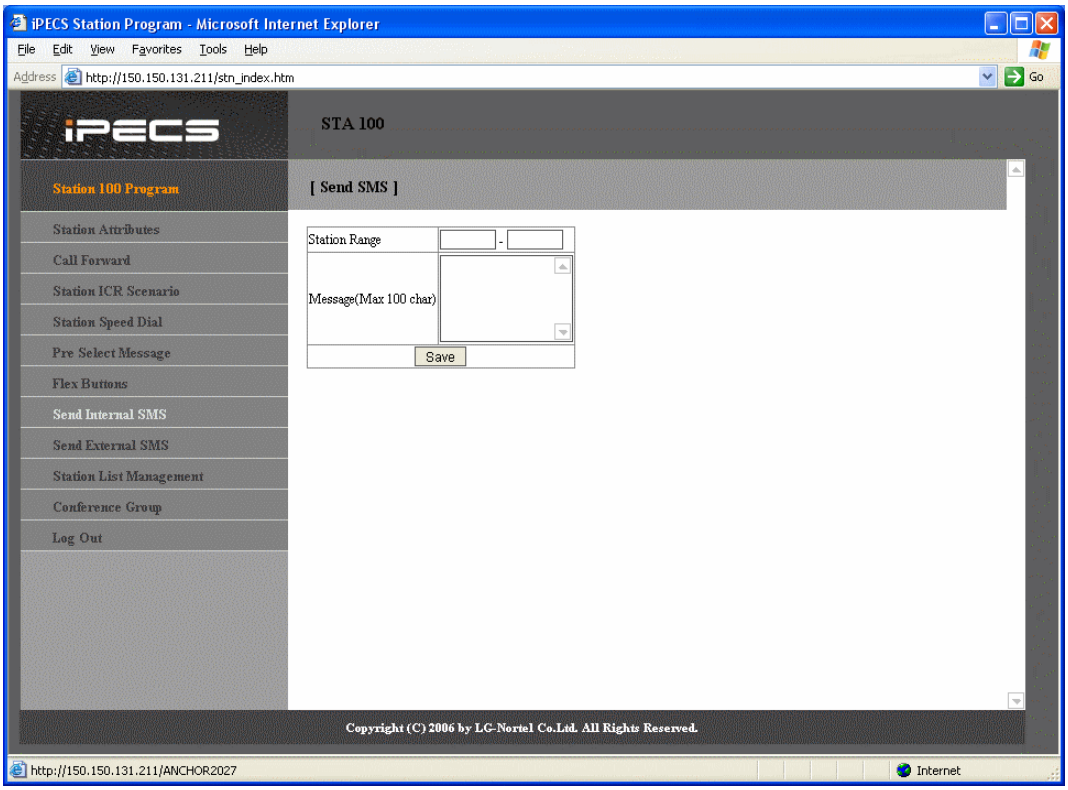

Figure 3.8.7-1 Internal SMS

3.8.8 External SMS

Selecting Send External SMS displays the input entry page, Figure 3.8.8-1

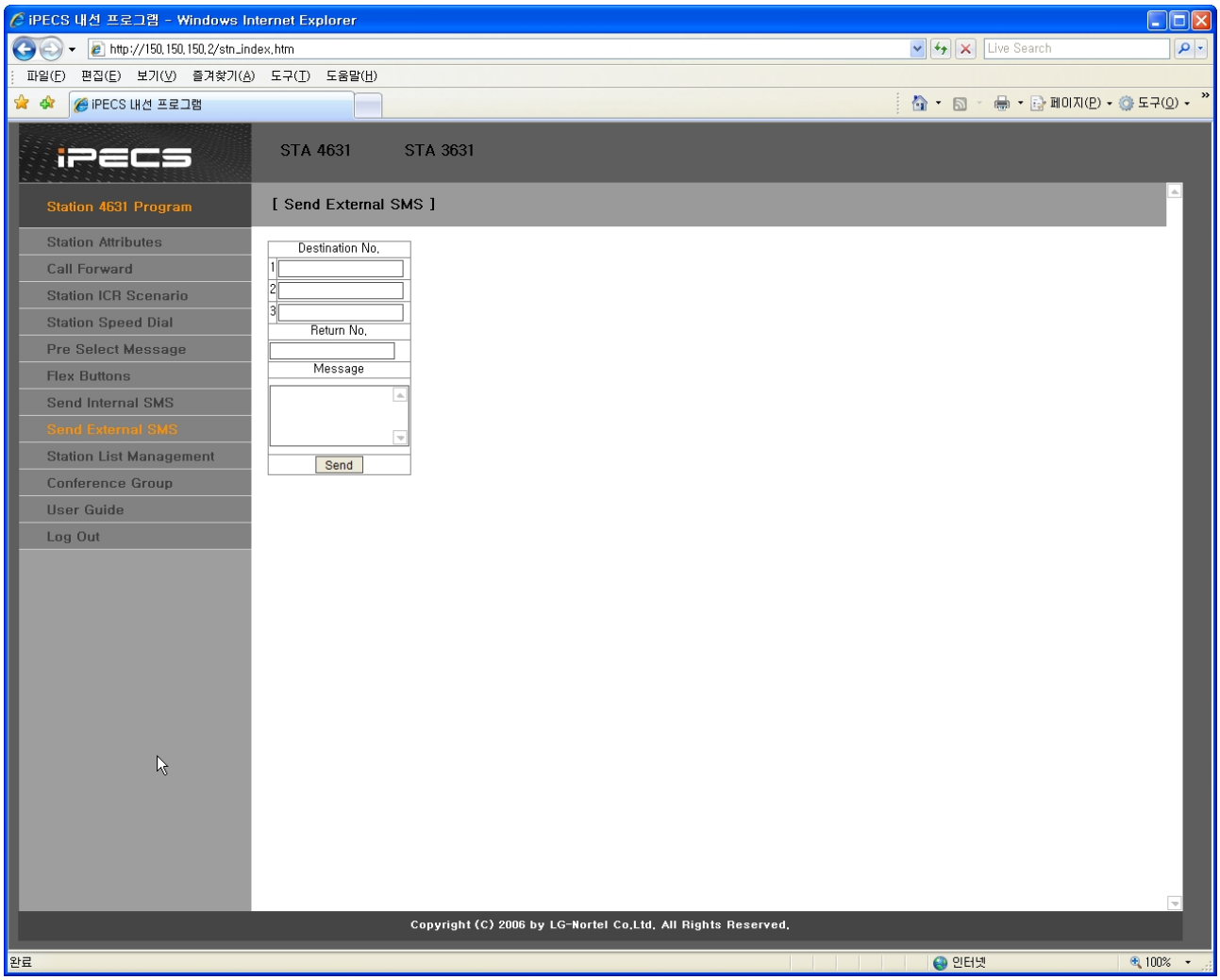

Figure 3.8.8-1 External SMS

3.8.9 Station List Management

Selecting Station List Management will display the input entry page, Figure 3.8.9-1.

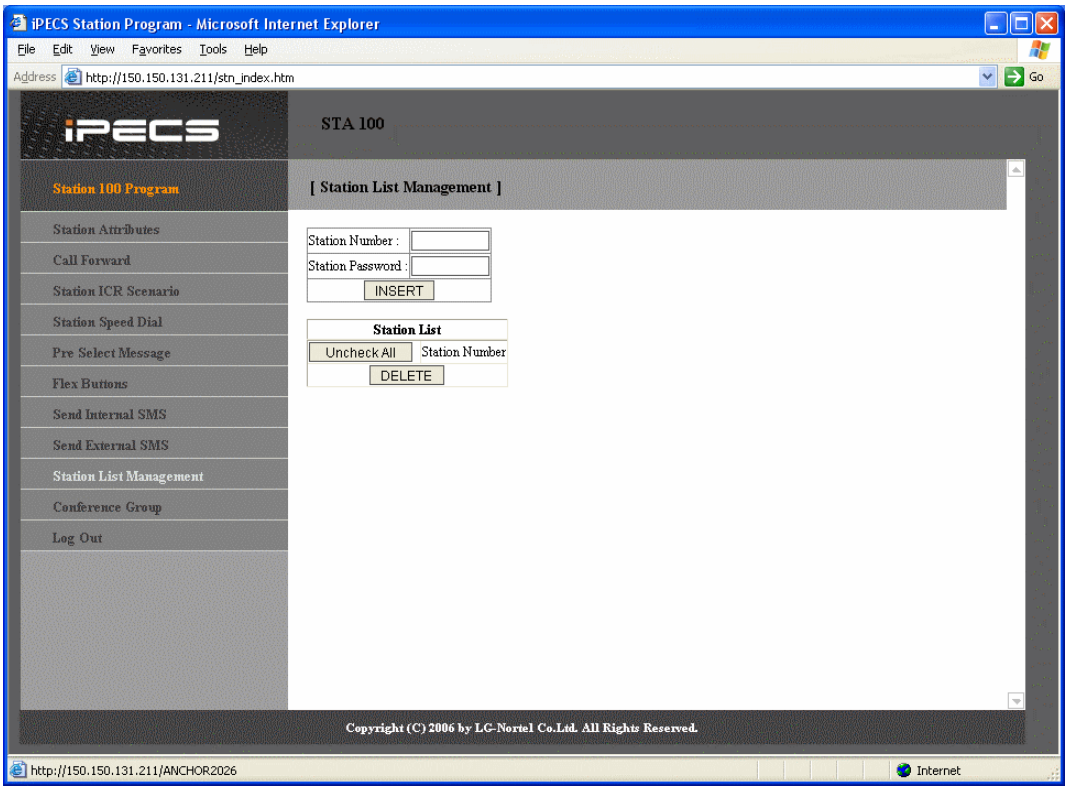

Figure 3.8.9-1 Station List Management

A user can manage and control other stations by using 'station list'. Stations, which can be controlled, are inserted or deleted from the Station List. To manage another station, enter the station number & password for the desired station and select insert. The user can now control properties of the inserted station including DND, User name, Call Forward, Flex Button Assignment, Pre-selected message, etc from the Station Program User portal.

3.8.10 Conference Group

Selecting Conference Group displays the input entry page, Figure 3.8.10-1.

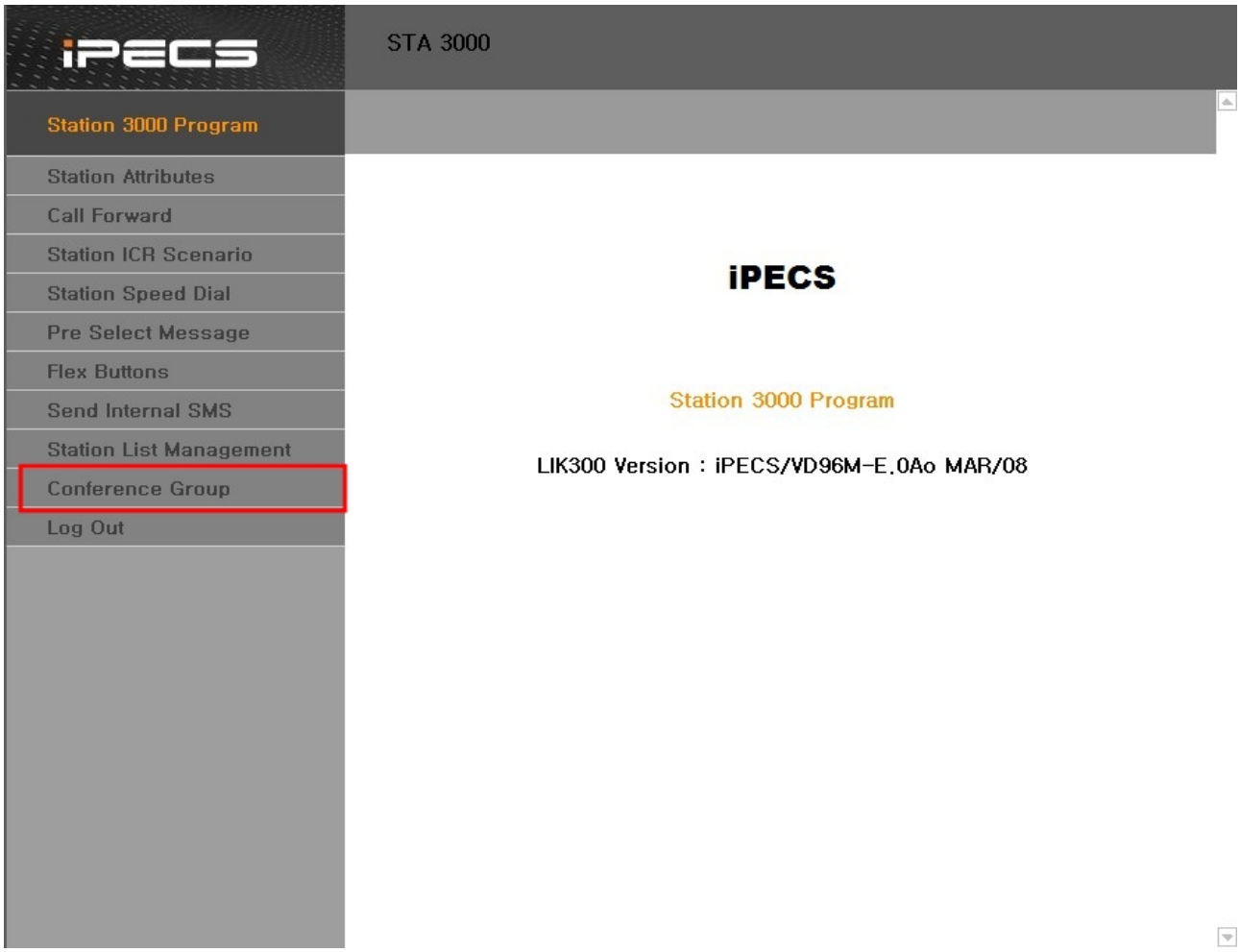

Figure 3.8.10-1 Conference Group

Selecting the number of conference group, Figure 3.8.10-2

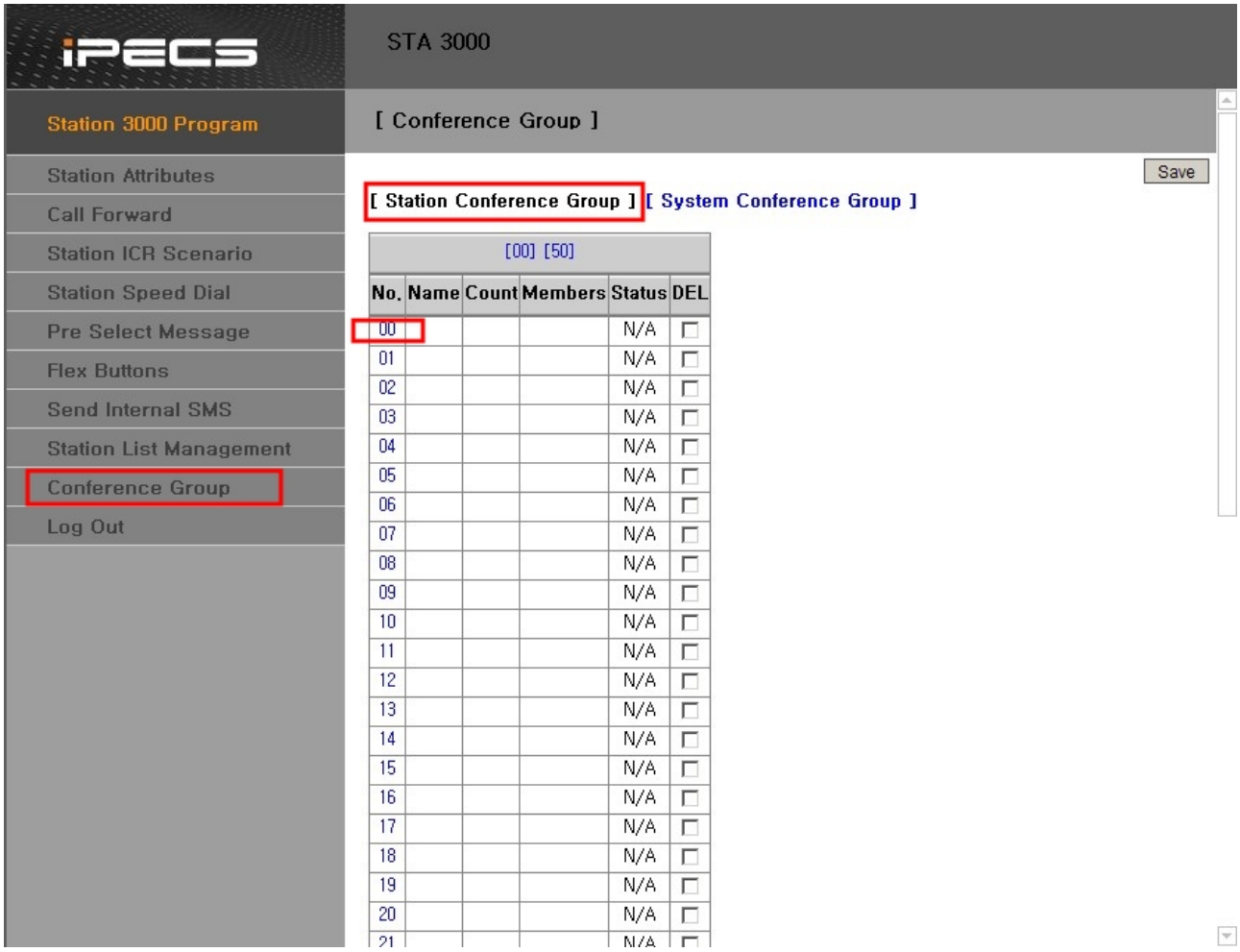

Figure 3.8.10-2

Program the attributes of group, and set the type, co dial number of member, Figure 3.8.10-3.

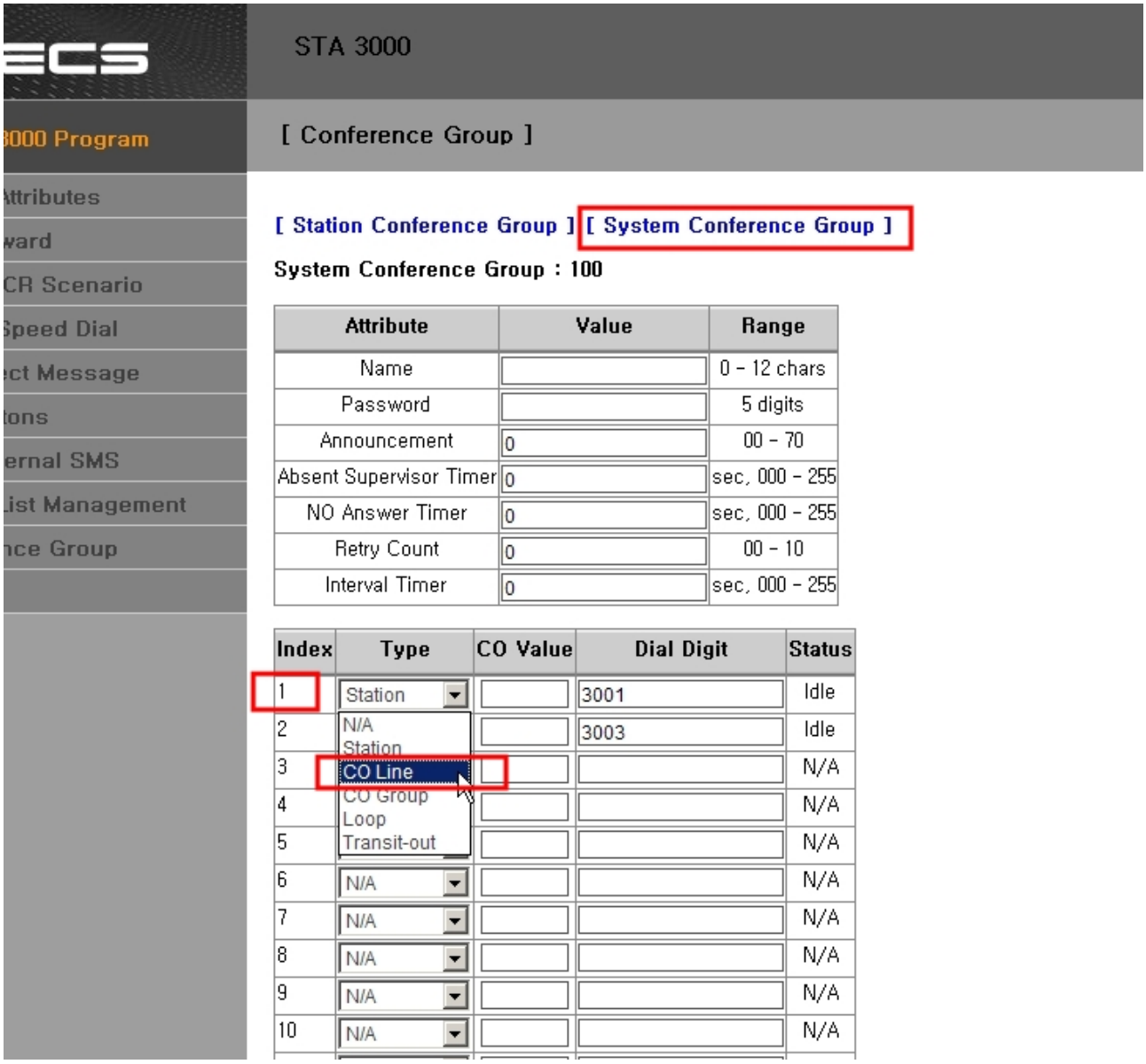

Figure 3.8.10-3

3.8.11 Station Logout

Selecting Logout will terminate the Station Program session and return the Station Program entry page shown in section 3.2.3.

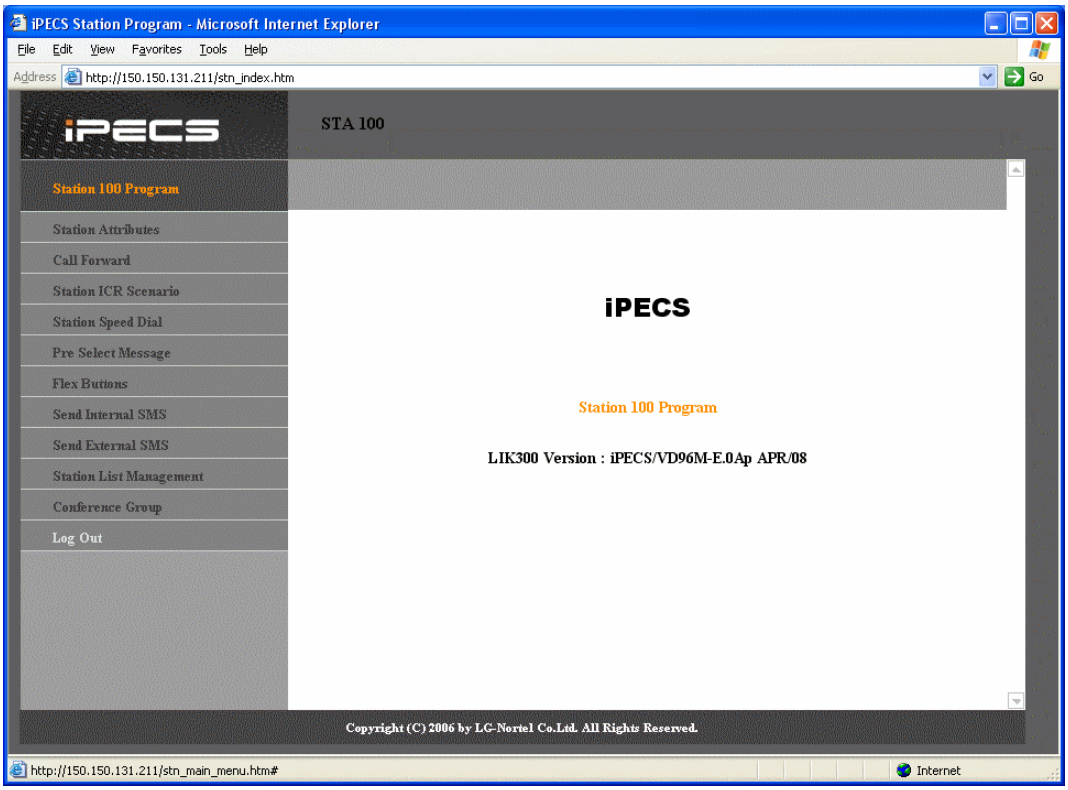

Figure 3.8.11-1 Station Logout

APPENDIX A

DATABASE INDEX

The Database index, refer to Table A-1, is divided into groups of "**PROGRAMS**" based on specific characteristics associated with the data such as, Numbering Plans, Station oriented database entries or CO Line oriented values. These groupings are identified as the Program Group in the Web access mode. The individual **PROGRAMS** are identified in the Table with the **ADMIN STATION PROGRAM CODE (PGM Code)** and a corresponding Web sub-menu and description.

Table A-1
Database Index

PROGRAM GROUP	PGM CODE	PGM NAME	WEB SUB-MENU
SYSTEM ID & NUMBERING PLAN	100	System ID	System ID
	Web only	Device Port Num Change	Device Port Num Change
	102	System IP Address Plan	System & Device IP Address Plan
	103	Device IP Address Plan	
	104	CO Gateway Sequence Number	CO Gateway Sequence Number
	105	Flexible Station Numbering Plan	Flexible Station Numbering Plan
	106	Flexible Numbering Plan part A	Flexible Numbering Plan
	107	Flexible Numbering Plan part B	
	108	Flexible Numbering Plan part C	
	109	Flexible Numbering Plan part D	
STATION DATA	110	Station Type	Station Type
	111	Station Attributes I	Station Attributes
	112	Station Attributes II	
	113	Station Attributes III	
	114	Station Attributes IV	Station ISDN Attributes
	115	Flexible button Assignment	Flexible Buttons
	116	Station COS	Station COS
	117	CO/IP Group Access	CO/IP Group Access
	118	Internal Page Zone Access	Internal Page Zone Access
	119	PTT Group Access	PTT Group Access
	120	Preset Call Forward	Preset Call Forward
	121	Idle Line Selection	Idle Line Selection
	122	Station IP Attributes	Station IP Attributes
	123	Station Timer	Station base Timer
	124	Linked Station Table	Linked Station Table
	125	Station ICM Tenancy Group	Station ICM Tenancy Group
	129	DSS Label Edit	DSS Label Edit
	Web only		SIP User ID Table
	Web only		Station Name Assignment
BOARD (GATEWAY) DATA	130	H.323 VoIP Attributes	H.323 VoIP Attributes
	131	T1/PRI Attributes	T1/PRI Attributes
	132	Board Base Attributes	H.323 VoIP Attributes
	Web only	SIP Gateway Attributes	SIP Gateway Attributes
CO LINE DATA	140	CO Service Type	CO Service Type
	141	CO/IP Attributes I	CO/IP Attributes
	142	CO/IP Attributes II	

PROGRAM GROUP	PGM CODE	PGM NAME	WEB SUB-MENU
	143	CO/IP Attributes III	CO/IP Attributes
	144	CO/IP Ring Assignment	CO/IP Ring Assignment
	145	DID Service Attributes	DID Service Attributes
	146	DISA Service Attributes	DISA Service Attributes
	147	CO/IP Preset Forward Attribute	CO/IP Preset Fwd Attrib
	150	NA ISDN Attributes	NA ISDN Attributes
	151	ISDN CO Line Attributes	ISDN CO Line Attributes
	152	NA T1 Line Timers	NA T1 Line Timers
	153	DCOB CO Attributes	DCOB CO Attributes
SYSTEM DATA	160	System Attributes I	System Attributes
	161	System Attributes II	
	162	System Password	System Password
	163	Alarm Attributes	Alarm Attributes
	164	Attendant Assignment	Attendant Assignment
	165	Multi-cast RTP/RTCP	Multi-cast RTP/RTCP
	166	DISA COS	DISA COS
	167	DID/DISA Destination	DID/DISA Destination
	168	External Control Contacts	External Control Contacts
	169	LCD Display Mode	LCD Date/Time & Language Mode
	170	LED Flashing Rate	LED Flashing Rate
	171	Music Sources	Music Sources
	172	PABX Access Codes	PABX Access Codes
	173	Ringing Line Preference Priority	Ringing Line Preference Priority
	174	RS-232 Port Settings	RS-232 Port Settings
	175	Serial Port Function Selection	Serial Port Function Selection
	176	Break/Make Ratio	Break/Make Ratio
	177	SMDR Attributes	SMDR Attributes
	178	Set System Date & Time	Set System Date & Time
	179	Multi-Language	System Multi-Language
	180	System Timer I	System Timers
	181	System Timer II	
	182	System Timer III	
	186	DCOB Sys Timer	DCOB Sys Timer
	195	NTP Attributes	NTP Attributes
	Web only		SNMP Attribute
	Web only		Cabinet Attribute
	250	Hot Desk Attributes	Hot Desk Attributes
	Web only		Web Access Authorization
	Web only		System Speed Dial
	Web only		Pre selected Message
	Web only		Station Group Overview
STATION GROUP	190	Station Group Assignment	Station Group Assignment
	191	Station Group Attributes	Station Group Attributes
ISDN LINE & ICLID	200	ISDN Attributes	ISDN Attributes
	201	CLIP/COLP Table	COLP Table
	202	MSN Table	MSN Table
	203	ICLID Route Table	ICLID Route Table
	204	ICLID Ring Assignment Table	ICLID Ring Assignment Table
	205	PPP Attributes	PPP Attributes
TABLES	220	LCR Control Attributes	LCR Assignment

PROGRAM GROUP	PGM CODE	PGM NAME	WEB SUB-MENU
	221	LCR LDT Table	LCR LDT Table
	222	LCR DMT Table	LCR DMT Table
	223	Initialize LCR DB	Initialize LCR DB
	224	TOLL Table – Allow A TOLL Table – Deny A TOLL Table – Allow B TOLL Table – Deny B TOLL Table – Allow C TOLL Table – Deny C TOLL Table – Allow D TOLL Table – Deny D TOLL Table – Allow E TOLL Table – Deny E	Toll Exception Tables
	226	Emergency Code Table	Emergency Code Table
	227	Authorization Codes Table	Authorization Code Table
	228	Customer Call Routing/VSF AA Table	Customer Call Routing/VSF AA Table
	229	Executive/Secretary Table	Executive/Secretary Table
	231	Flexible DID Conversion Table	Flexible DID Table
	232	System Speed Zone	System Speed Zone
	233	Auto Ring Mode	Auto Ring Mode
	234	Voice Mail Dialing Table	Voice Mail Dialing Table
	235	Registration Table	Registration Table
	236	Mobile Extension Table	Mobile Extension Table
NETWORKING	320	Network Basic Attributes	Network Basic Attributes
	321	Network Supplementary Attributes	Network Supplementary Attributes
	322	Network. COL Attributes	Network. COL Attributes
	324	Network Numbering Plan Table	Network Numbering Plan Table
	325	Net Feature Code Table	Net Feature Code Table
TNET	330	TNET Basic Attributes	TNET Basic Attributes
	331	TNET CM Attributes	TNET CM Attributes
	332	TNET LM Attributes	TNET LM Attributes
	333	FoPSTN Attributes	FoPSTN Attributes
	334	Tnet Control Contact	Tnet Control Contact
	335	Tnet Music/ Alarm	Tnet Music/Alarm
	336	Tnet Music/Alarm	Tnet Music/Alarm
NATION SPECIFIC	400	IP Phone H/S Receive Gain	IP Phone H/S Receive Gain
	401	IP Phone H/F Receive Gain	IP Phone H/F Receive Gain
	402	SLTM Receive Gain	SLTM Receive Gain
	403	ACOB Receive Gain	ACOB Receive Gain
	404	DCOB Receive Gain	DCOB Receive Gain
	405	VSF Receive Gain	VSF Receive Gain
	406	Ext. Page Receive Gain	Ext. Page Receive Gain
	420	System Tone Cadence	System Tone Cadence
	421	System Tone Frequency	System Tone Frequency
	422	Tone Generation Gain	Tone Generation Gain
	423	ACNR Tone Cadence	ACNR Tone Cadence
	424	ACNR Ring Frequency	ACNR Ring Frequency
	425	SLT Tone Cadence	SLT Tone Cadence
	426	DTMF PCM Tone Generation Gain	DTMF PCM Tone Generation Gain
	427	DTMF RTP Tone Generation Gain	DTMF RTP Tone Generation Gain
	428	Mute Ring Gain	Mute Ring Gain
	429	LGCM Configuration	LGCM Configuration

PROGRAM GROUP	PGM CODE	PGM NAME	WEB SUB-MENU
RSGM DATA	430	RSGM Device Address	RSGM Device Address
	431	RSGM Multicast Address	RSGM Multicast Address
	432	RSGM External Contact Attributes	RSGM External Contact Attributes
	433	RSGM Alarm Attributes	RSGM Alarm Attributes
	434	RSGM Music Assignments	RSGM Alarm Attributes
	435	RSGM Service Attributes	RSGM CO/IP Group
ZONE	Web only		Device Zone Number Assignment
	Web only		Device Attributes
	Web only		Access & Page Relay
	Web only		Zone Attributes
	Web only		Zone RTP Relay Group
	Web only		Inter Zone Attributes
	Web only		Zone Holiday Assignment
DEVICE LOGIN	Web only		Remote Phone & Gateway Registration
	Web only		Station User Login
INITIALIZATION	450	Initialization	Initialization
PRINT-OUT	451	Print-Out Database	Print-Out Database
Virtual Dip Switch	452	Virtual Trace Dip Switch	Virtual Trace Dip Switch
	453	Virtual Dip Switch	Virtual Dip Switch
DECT Data	491	DECT ATTRIBUTES	DECT ATTRIBUTES
	492	WTIM(DECT) RX Gain	WTIM(DECT) RX Gain
	493	DEVICE RX Gain from WTIM(DECT)	Other devices RX Gain from WTIM(DECT)
	494	WTIM(DECT) TX GAIN)	WTIM(DECT) TX Gain
	495	DEVICE TX Gain to WTIM(DECT)	Other devices TX Gain to WTIM(DECT)

APPENDIX B

DEFAULT NUMBERING PLAN

The Default Numbering Plan can be selected from 1 of 8 base Numbering Plans shown in Tables B-2A & B-2B. The Number Plan can be changed using the Numbering Plan Programs, PROGRAM CODES 106 to 108. A brief description of each Number Plan is given in Table B-1.

TABLE B-1
Numbering Plan Description

Plan Number	Description	Range			
		MFIM100	MFIM300	MFIM600	MFIM1200
1	Basic Numbering Plan	100 - 169	100 - 399	1000 - 1599	1000 - 2199
2	The station number can be within 799.	100 – 169	100 – 399		
3	Australia Default	100– 169	100 – 399		
4	New Zealand Default	700 – 769	700 – 999		
5	Italy Default	200 – 269	200 – 499		
6	Finland Default, max. Stations 60	21 – 79	21 – 79		
7	Default for Sweden, max. Stations, 200 Stations above Max ports will be displayed as "***"	100 – 169	100 – 399		
8	The station number can be changed within 999.	100 – 169	100 – 399		

TABLE B-2A
Base Numbering Plan 1-4, Default Values

Feature	Base Numbering Plan 1	2	3	4	Remark
Intercom Call					
MFIM100	100~169	100 – 169 (100 ~ 799)	100 – 169	700 – 769 (700 ~ 999)	
MFIME300	100~399	100 – 399 (100 ~ 799)	100~399	700~999	
MFIM600	1000-1599				
MFIM1200	1000~2199				
Internal Page Zone					
MFIM100	501~510	*501 – *510	#101-#110	#01-#10	
Other MFIMs	501~535	*501 – *535	#101-#135	#01-#35	
Internal All Call Page	543	*543	#3	#7	
Meet Me Page	544	*544	##	##	
External Page Zone 1~2	545~546	*545~*546	#41~#42	#41~#42	
External All Call Page	548	*548	#5	#5	
All Call Page (Internal/External)	549	*549	#00	#00	
SMDR Account Code Enter	550	*550	550	#9	SLT
Flash Command to CO Line	551	*551	551	551	SLT

Feature	Base Numbering Plan 1	2	3	4	Remark
Last Number Redial	552	*552	552	552	SLT
DND (Toggle On/Off)	553	*553	553	553	SLT
Call Forward	554	*554	554	554	
Speed Dial Programming	555	*555	555	*40	SLT
Message Wait/Callback Enable	556	*556	556	*66	SLT
Message Wait/Callback Return	557	*557	557	*67	SLT
Speed Dial Access	558	*558	558	#8	SLT
Cancel DND/FWD/Pre MSG	559	*559	559	559	SLT
CO System Hold	560	*560	560	560	SLT
Program Mode Access	561	*561	561	561	SLT
Attendant Unavailable	562	*562	562	562	
Alarm Reset	565	*565	565	*565	
Group Call Pickup	566	*566	**	*1	
Universal Answer	567	*567	567	2	
Account Code with bin	568	*568	568	568	
Walking COS Code	569	*569	569	569	
ACD Supervisor On/Off Duty	571	*571	571	571	
ACD Supervisor Login	572	*572	572	572	
ACD Supervisor Logout	573	*573	573	573	
ACD Help Code	574	*574	574	574	
ACD Calls In Queue Display	575	*575	575	575	
ACD Supervisor Status Display	576	*576	576	576	
ACD Supervisor Monitor	577	*577	577	577	
ACD Reroute Queued Call w/answer	578	*578	578	578	
ACD Reroute Queued Call w/o answer	579	*579	579	579	
Camp-On Answer	600	*600	600	600	SLT
Call Parking Locations					
MFIM&MFIM100	601~610	*601 -* 610	601 – 610	601 – 610	
	601~619	*601 -* 619	601 – 619	601 – 619	
MFIME&MFIM300 MFIM600	#601~#699	#601~#699	#601~#699	#601~#699	
Group Pilot Number					
MFIM&MFIM100	620 – 659	*620 - *659	620 - 659	620 - 659	
Other MFIMs	620 – 667	*620 - *667	620 - 667	620 - 667	
Station User VSF Features					
	66	66	66	69	
MFIM&MFIM100	*66	66	*66	69	
Other MFIMs					
Call Coverage Ring	67	*67	*67	67	
Direct Call Pickup	7	*7	*7	*42	
CO/IP Group Access	8xx	8xx	8xx	4xx	xx: 01~20, iPECS-100 xx: 01~72, iPECS-300
Individual CO/IP Line Access					

Feature	Base Numbering Plan 1	2	3	4	Remark
MFIM&MFIM100 Other MFIMs	88xx 88xxx	88xx 88xxx	88xx 88xxx	48xx 48xxx	xx: 01~42 xxx: 001~200 or 400
Retrieve Last Held CO/IP	8*	8*	8*	4*	
Retrieve Individual Held CO/IP MFIM&MFIM100 Other MFIMs	8#xx 8#xxx	8#xx 8#xxx	8#xx 8#xxx	4#xx 4#xxx	xx: 01~42 xxx: 001~200 or 400
Access CO Line in the 1st available CO Group	9	9	9	1	
Attendant Call	0	0	0	0	
VM Message Wait Enabled	*8	*8	*8	*8	
VM Message Wait Disable	*9	*9	*9	*9	
Door Open (1st Door)	#*1	#*1	#*1	#*1	
Door Open (2nd Door)	#*2	#*2	#*2	#*2	
Door Open (3rd Door)	#*3	#*3	*3	#*3	N/a in MFIM & 100
Door Open (4th Door)	#*4	#*4	*4	#*4	N/a in MFIM & 100
MCID Request	*0	*0	*0	*0	
AME Feature	564	*564	564	564	
Unsupervised conference extend code	##	##	*##	*22	
PTT Group Login/Logout	#0	#0	#*0	*21	
ACD primary login	581	*581	581	581	
ACD Agent primary logout	582	*582	582	582	
ACD Agent secondary login	583	*583	583	583	
ACD Agent secondary logout	584	*584	584	584	
ACD wrap-up end	585	*585	585	585	
TNET CM Login/out	586	*586	586	586	
Enter Conf-Room call	59	*59	*59	59	
Enter Conf-Group call	68	*68	*68	68	
Station ICR	587	*587	587	587	
Last Number Redial (LNR)	[REDIAL]	[REDIAL]	[REDIAL]	[REDIAL]	Keyset
Save Number Redial	[SAVE]	[SAVE]	[SAVE]	[SAVE]	Keyset
Station Speed Dial Access MFIM&MFIM100 Other MFIMs	[SPEED] + XX XXX	[SPEED] + XX XXX	[SPEED] + XX XXX	[SPEED] + XX XXX	XX: 00~19 XXX: 000~099
System Speed Dial Access MFIM&MFIM100 Other MFIMs	[SPEED] + XXX XXXX	[SPEED] + XXX XXXX	[SPEED] + XXX XXXX	[SPEED] + XXX XXXX	XXX: 200~999 XXXX: 2000~4999

TABLE B-2B
Base Numbering Plan 5-8, Default Values

Feature		Base Numbering Plan				
		5	6	7	8	Remark
Intercom Call						
	MFIM & 100	200 – 269	10-79	100 – 169	100 – 169 (100 ~ 999)	
	MFIME & 300	200 – 499	10 –79	100 – 399	100 – 399 (100 ~ 999)	
	MFIM600	2000-2599		1000 - 1599		
Internal Page Zone						
MFIM&MFIM100		#101-#110	*501 – *510	401 – 410	*501 – *510	
	Other	#101-#135	*501 – *535	401 – 435	*501 – *535	
MFIMs						
Internal All Call Page		#3	*543	43	*543	
Meet Me Page		##	*544	44	*544	
External Page Zone 1~2		#41~#42	*545~*546	45~46	*545~*546	
External All Call Page		#5	*548	48	*548	
All Call Page (Internal/External)		#00	*549	49	*549	
SMDR Account Code Enter		50	*550	0	*550	SLT
Flash Command to CO Line		51	*551	51	*551	SLT
Last Number Redial		52	*552	52	*552	SLT
DND (Toggle On/Off)		53	*553	53	*553	SLT
Call Forward		54	*554	54	*554	
Speed Dial Programming		55	*555	55	*555	SLT
Message Wait/Callback Enable		56	*556	56	*556	SLT
Message Wait/Callback Return		57	*557	57	*557	SLT
Speed Dial Access		58	*558	58	*558	SLT
Cancel DND/FWD/Pre MSG		59	*559	59	*559	SLT
CO System Hold		690	*560	*10	*560	SLT
Program Mode Access		691	*561	50	*561	SLT
Attendant Unavailable		692	*562	*12	*562	
Alarm Reset		695	*565	*13	*565	
Group Call Pickup		**	*566	*14	*566	
Universal Answer		697	*567	*15	*567	
Account Code with bin		698	*568	*16	*568	
Walking COS Code		699	*569	*17	*569	
ACD Supervisor On/Off Duty		671	*571	*20	*571	
ACD Supervisor Login		672	*572	*21	*572	
ACD Supervisor Logout		673	*573	*22	*573	
ACD Help Code		674	*574	*23	*574	
ACD Calls In Queue Display		675	*575	*24	*575	
ACD Supervisor Status Display		676	*576	*25	*576	
ACD Supervisor Monitor		677	*577	*26	*577	
ACD Reroute Queued Call w/answer		678	*578	*27	*578	
ACD Reroute Queued Call w/o answer		679	*579	*28	*579	

Feature	Base Numbering Plan				Remark
	5	6	7	8	
Camp-On Answer	600	*600	*29	*600	SLT
Call Parking Locations					
MFIM&MFIM100	601 - 610	*601 -* 610	601 - 610	*601 -* 610	
MFIME&MFIM300	601 – 619	*601 -* 619	601 – 619	*601 -* 619	
MFIM600	#601-#699	#601-#699	#601-#699	#601-#699	
Group Pilot Number					
MFIM&MFIM100	620 – 659	*620 - *659	620 – 659	*620 - *659	
Other MFIMs	620 – 667	*620 - *667	620 – 667	*620 - *667	
Station User VSF Features					
MFIM&MFIM100	66	66	67	66	
Other MFIMs	*66	66	67	66	
Call Coverage Ring	*67	*67	*30	*67	
Direct Call Pickup	7	*7	7	*7	
CO/IP Group	8xx	8xx	8xx	#8xx	xx: 01~20, MFIM & 100 xx: 01~72, other MFIMs
Individual CO/IP Line Access					
MFIM&MFIM100	88xx	88xx	88xx	#88xx	xx: 01~42
Other MFIMs	88xxx	88xxx	88xxx	#88xxx	xxx: 001~200 or 400
Retrieve Last Held CO/IP	8*	8*	8*	#8*	
Retrieve Individual Held CO/IP					
MFIM&MFIM100	8#xx	8#xx	8#xx	#8#xx	xx: 01~42
Other MFIMs	8#xxx	8#xxx	8#xxx	#8#xxx	xxx: 001~200 or 400
Access CO Line in the 1st available CO Group	0	9	9	0	
Attendant Call	9	0	0	#9	
VM Message Wait Enabled	*8	*8	*8	*8	
VM Message Wait Disable	*9	*9	*9	*9	
Door Open (1st Door)	#*1	#*1	*31	#*1	
Door Open (2nd Door)	#*2	#*2	*32	#*2	
Door Open (3rd Door)	#*3	#*3	*33	#*3	N/a in MFIM & 100 only
Door Open (4th Door)	#*4	#*4	*34	#*4	N/a in MFIM & 100 only
MCID Request	*0	*0	*35	*0	(Except USA version)
AME Feature	694	*564	*36	*564	
Unsupervised conference extend code	*##	##	*37	##	

Feature	Base Numbering Plan				Remark
	5	6	7	8	
PTT Group Login/Logout	#*0	#0	*38	#0	
ACD Agent Primary Login	681	*581	*40	*581	
ACD Agent Primary Logout	682	*582	*41	*582	
ACD Agent Secondary Login	683	*583	*42	*583	
ACD Agent Secondary Logout	684	*584	*43	*584	
ACD Wrap-up end	685	*585	*44	*585	
TNET CM Login/out	686	*586	*45	*586	
Enter Conf-Room call	*59	*59	*59	*59	
Enter Conf-Group call	*68	*68	*68	*68	
Station ICR	687	*587	*46	*587	
Last Number Redial (LNR)	[REDIAL]	[REDIAL]	[REDIAL]	[REDIAL]	Keyset
Save Number Redial	[SAVE]	[SAVE]	[SAVE]	[SAVE]	Keyset
Station Speed Dial Access MFIM&MFIM100 Other MFIMs	[SPEED]+ X X XXX	[SPEED] + XX XXX	[SPEED] + XX XXX	[SPEED] + XX XXX	XX: 00~19 XXX: 000~099
System Speed Dial Access MFIM&MFIM100 Other MFIMs	[SPEED] + XXX XXXX	[SPEED] + X XX XXXX	[SPEED] + XXX XXXXX	[SPEED] + XXX XXXX	XXX: 200~999 XXXX: 2000~4999

APPENDIX C

FIXED FUNCTION/USER PROGRAM CODES

Fixed Function Codes, refer to Tables C-1 and C-2, are digit sequences users and the Attendant may dial while in the USER PROGRAM MODE to assign certain Flex buttons and affect the status of a feature or setting. For more information on the USER PROGRAM MODE refer to the iPECS Features and Operation Guide.

Many of these Function Codes may be assigned to a button of an iPECS Phone by pressing the [PGM] button as the first entry of a Flexible button assignment, see Flex button Programming in the iPECS Features and Operation Guide.

TABLE C-1
STATION USER PROGRAM FIXED FUNCTION CODES

FUNCTION CODE	FUNCTION
10	Enblock Dialing, 600 & 7000 only
11 X	Intercom Differential Ring (X = 1-8)
12 X	CO Line Differential Ring (X = 1-8)
13	Intercom Answer Mode (1: HF/2: TONE/3: PV)
14X	Call Coverage Attribute (1: On/Off, 2: Ring Delay)
15X	Station Ring Download (X = 0-9)
19	Ear-Mic Headset, 600 & 7000 only
21	Knock Down Station COS
22	Restore Station COS
23	Walking COS
24	ICR SCENARIO
31	Message Retrieve Method
32	Message Retrieve Example
33	User Authorization Code Registration
34	{DID CALL WAIT} button assignment
35	Message Wait in Executive/Secretary pair
36	Send SMS Message
37	Register Mobile Extension
38	Make Mobile Extension active
39	Register Mobile Extension CLI
41	Set Wake-Up Time
42	Wake-Up Time Disable
51 XX	Custom/Pre-select Message Display (XX = 00-20)
52	Register Custom Message (Message 00)
53	Create Conference Room

FUNCTION CODE	FUNCTION
54	Delete Conference Room
57	{Call Log Display} Button Assignment
61	Headset/Speakerphone Mode
62	Change Ring Mode
71	LCD Display Mode
72	Version Display
73	Background Music
74	Station User Name Registration
75	Display Phone IP Address
76	Change Phone IP Address
77	Display Phone MAC IP Address
78	Change Mode
79	Display Phone Version
7*	Display Serial number/Package for SMEMU
80	{Record} Button Assignment – With Voice Mail
81	{CLIR} Button Assignment
82	{COLR} Button Assignment
84	{Account Code} Button Assignment
85	{LOOP} Button Assignment
86	{ATD Intrusion} Button Assignment
87	(ICM) Button Assignment
88	{Camp-on} Button Assignment
89	{Send Keypad Facility IE} Button Assignment
8#	{OHVO} Button Assignment
99	{PTT} Button Assignment
*0	Hot Desk Login
**	Hot Desk Logout
*8	Register Bluetooth
*9	Bluetooth Usage
91	{CONFERENCE} button, 6000 & 7000 only
92	{CALLBACK} button, 6000 & 7000 only
93	{DND} button, 6000 & 7000 only
94	{FLASH} button, 6000 & 7000 only
95	{MUTE} button, 6000 & 7000 only
96	{MONITOR} button, 6000 & 7000 only
97	{REDIAL} button, 6000 & 7000 only
98	{CALL FORWARD} button, 6000 & 7000 only

TABLE C-3
ATTENDANT USER PROGRAM FIXED FUNCTION CODES

FUNCTION CODE	FUNCTION
0111	Print SMDR, by Station
0112	Delete SMDR, by Station
0113	Display Call Charge
0114	Abort Print
0115	Print Lost Call Report
0116	Delete Lost Call Report
0121	Print Traffic Analysis (All summary)
0122	Print Traffic Analysis (All summary periodically)
0123	Abort “Print Traffic Analysis (All summary periodically)”
0124	Print Traffic Analysis (Attendant)
0125	Print Traffic Analysis (Call summary)
0126	Print Traffic Analysis (Call Hourly)
0127	Print Traffic Analysis (H/W Usage)
0128	Print Traffic Analysis (COsummary)
0129	Print Traffic Analysis (CO Hourly)
021	Knock Down Station COS
022	Restore Station COS
031	Authorization Code Registration
032	Erase Authorization
041	System Date/Time Mode
042	LCD Date Mode
043	LCD Time Mode
044	Set Wake Up Time from Attendant
045	Wake Up Disable from Attendant
046	PX Clock Set through ISDN message
051	Custom/Pre-select Message
052	DND/Call Forward/Pre-selected MSG Cancel
053	Custom Display Message (11-20)
054	Delete Conference Room
055	Monitor Conference Room
06	VSF – Record System Greeting
071	Dial By Name
072	Isolate Fault CO Line
073	Automatic Day/Night/Timed Ring Table
074	External Page Music -1 Assignment/Cancel
075	External Page Music -2 Assignment/Cancel
076	LCD Display Language
077	PTT Login with station range
078	Display cpu redundancy state
*#	Admin Programming Code

APPENDIX D

DEFAULT VALUES

The following Tables, divided based on the PROGRAM group and PROGRAM, provide the default values assigned to all Admin entries. Prior to changing an entry during programming assure you have an understanding of the PROGRAM and its purpose.

TABLE D-1
SYSTEM ID

Button	SUB-MENU	DEFAULT	REMARK
PGM Code: 100 -System ID			
1	Country Code	1	Maximum 4 digits
2	Customer Site Name		Maximum 23 characters
3	My Area Code		Maximum 6 digits
4	Numbering Plan Type	1	Overall default Numbering Plan, the 1st station digit should be 1 – 4.
		2	The station number can be from 100~799.
		3	Australia Default
		4	New Zealand Default
		5	Italy Default
		6	Finland Default, Max Station Ports is 60. Stations above Max ports will be displayed "***"
		7	Max Station Ports 70 Stations above Max ports will be displayed "***"
		8	The station number can be from 100~ 999.
5	System ID reset		System reset

TABLE D-2
Numbering Plans

Button	SUB-MENU	DEFAULT	REMARK
PGM Code: 102 -System IP Address Plan			
1	MFIM/E Address	10.10.10.2	Public IP Address for H.323 calls
2	MFIM/E Subnet mask	255.255.255.0	
3	Router IP Address	10.10.10.1	Router IP Address for WAN access
4	System start IP address	10.10.10.10	Private start address for system to module & terminal communications
5	System end IP address	10.10.10.254	Private end address for system to module & terminal communications
6	System Subnet mask	255.255.255.0	
7	Automatic IP Address Assignment	ON	
8	Second System IP Address	0.0.0.0	Second Private IP Address for modules
9	Second System Net Mask	255.255.255.0	Second Private Sub-net Mask for modules
10	Firewall IP Address	0.0.0.0	IP Address of firewall for external network (WAN/IP) access

Button	SUB-MENU	DEFAULT	REMARK
11	First Start Mac Address	00:00:00:00:00:00	First : Start MAC Address to register a device regardless of the 3rd dip switch
12	First End Mac Address	00:00:00:00:00:00	First : End MAC Address to register a device regardless of the 3rd dip switch
13	Second Start Mac Address	00:00:00:00:00:00	Second : Start MAC Address to register a device regardless of the 3rd dip switch
14	Second End Mac Address	00:00:00:00:00:00	Second : End MAC Address to register a device regardless of the 3rd dip switch
15	System IP Address plan Reset		Returns System IP Address Plan to default values.
16	Master MFIM LAN2 IP Address	0.0.0.0	
17	Slave MFIM LAN2 IP Address	0.0.0.0	
18	MFIM DNS IP Address	0.0.0.0	

PGM Code: 103 Device IP Address Plan

1	CO/IP Gateway IP Address	10.10.10.10~254 - On On	Flex1: Set IP Address Flex2: Set Mac Address Flex3: Direct Send Flex 4: Local Device Flex 5: CPU Type Flex 6: Device Id (type)
2	Station IP Address	10.10.10.10~254 - On On	Flex1: Set IP Address Flex2: Set Mac Address Flex3: Direct Send Flex 4: Local Device Flex 5: CPU Type Flex 6: Device Id (type)
3	MISC IP Address	10.10.10.10~254 - On On	Flex1: Set IP Address Flex2: Set Mac Address Flex3: Direct Send Flex 4: Local Device Flex 5: CPU Type Flex 6: Device Id (type)
4	VMIM&VSF IP Address	10.10.10.10~254 - On On	Flex1: Set IP Address Flex2: Set Mac Address Flex3: Direct Send Flex 4: Local Device Flex 5: CPU Type Flex 6: Device Id (type)
5	MCIM IP Address	10.10.10.10~254 - On On	Flex1: Set IP Address Flex2: Set Mac Address Flex3: Direct Send Flex 4: Local Device Flex 5: CPU Type Flex 6: Device Id (type)
6	Device IP Address Plan	System Reset	

PGM Code: 104 - CO/IP GW Sequence Number

	CO/IP Module Sequence Assignment	Next available	Sequence numbers are assigned to the maximum available for the system.

PGM Code: 105 -Flexible Station Number, Base 1

	Flexible Station Number MFIM & 100 MFIME & 300 MFIM 600 MFIM1200	 100~169 100~399 1000-1599 1000~2199	Default Numbering Plan Country Code 1.

PGM Code: 106 -Flexible Numbering Plan part A, Base 1

Button	SUB-MENU	DEFAULT	REMARK
1	Internal Page Zone MFIM Other MFIMs	 501~510 501~535	
2	Internal All Call Page	543	
3	Meet Me Page	544	
4	External Page Zone 1	545	
5	External Page Zone 2	546	
6	External All Call Page	548	
7	All Call Page (Internal & External)	549	
8	SMDR Account Code Enter	550	SLT
9	Flash Command to CO Line	551	SLT
10	Last Number Redial	552	SLT
11	DND (Toggle On/Off)	553	SLT
12	Call Forward	554	
13	Speed Dial Programming	555	SLT
14	Message Wait/Callback Enable	556	SLT
15	Message Wait/Callback Return	557	SLT
16	Speed Dial Access	558	SLT
17	Cancel DND/FWD/Pre-MSG	559	SLT
18	CO System Hold	560	SLT
19	Programming Mode Enter Code	561	SLT
20	Attendant Unavailable	562	
21	Alarm Reset	565	
22	Group Call Pickup	566	
23	Universal Night Answer	567	
24	Account Code	568	

PGM Code: 107 -Flexible Numbering Plan part B, Base 1

1	Walking COS Code	569	
2	ACD Agent On/Off Duty	571	
3	ACD/UCD Supervisor Login	572	
4	ACD/UCD Supervisor Logout	573	
5	ACD/UCD Help Code	574	
6	ACD/UCD Calls In Queue Display	575	
7	ACD/UCD Supervisor Status Display	576	
8	ACD Supervisor Monitor	577	
9	ACD Reroute Queued Call w/answer	578	
10	ACD Reroute Queued Call w/o answer	579	
11	Camp-On Answer	600	
12	Call Park Locations MFIM & 100 Other MFIMs	 601~610 601~619	
13	Group Pilot Number MFIM & 100 Other MFIMs	 620~659 620~667	

Button	SUB-MENU	DEFAULT	REMARK
14	Station User VSF Features MFIM & 100 Other MFIMs	66 *66	
15	Call Coverage Ring	67	
16	Direct Call Pickup	7	
17	CO/IP Group Access MFIM Other MFIMs	8xx 8xx	xx: Group 01~20 xx: Group 01~72
18	Individual CO/IP Access MFIM Other MFIMs	88xx 88xxx	xx: CO Line 01~42 xxx: CO Line 001~200 or 400
19	Retrieve Last Held CO/IP	8*	
20	Retrieve Held Individual CO/IP	8#	
21	Access 1st available CO Line	9	
22	Attendant Call	0	
23	VM Message Waiting Enable	*8	
24	VM Message Waiting Cancel	*9	

PGM Code: 108 - Flexible Numbering Plan part C, Base 1

1	1st Door Open	#*1	
2	2nd Door Open	#*2	
3	3rd Door Open	#*3	N/a for MFIM only
4	4th Door Open	#*4	N/a for MFIM only

PGM Code: 109 - Flexible Numbering Plan part D, Base 1

1	MCID Request	*0	
2	Answering Machine Emulation	564	
3	Unsupervised conference extend code	##	
4	PTT Group login in-out code	#0	
5	ACD Agent Primary Login Code	581	
6	ACD Agent Primary Logout Code	582	
7	ACD Agent Secondary Login Code	583	
8	ACD Agent Secondary Logout Code	584	
9	ACD Wrap-up End	585	
10	TNET Login/out Code	586	
11	Enter Into Conf-Room	59	
12	Enter into Conf-Group	68	
13	Station ICR	587	

TABLE D-3
STATION DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK

PGM Code: 110 -Station Type

Button	SUB-MENU	RANGE	DEFAULT	REMARK
1	Station Type MFIM Other MFIMs	 1~6 01~12		
2	DSS/DLS MAP	Station		
PGM Code: 111 -Station Attributes I				
1	Auto Speaker Selection	1: ON, 0: OFF	ON	
2	Call Forward	1: ON, 0: OFF	ON	
3	DND	1: ON, 0: OFF	OFF	
4	Data Line Security	1: ON, 0: OFF	OFF	
5	Howler Tone	1: ON, 0: OFF	ON	
6	No Touch Answer	1: ON, 0: OFF	OFF	
7	Page Access	1: ON, 0: OFF	OFF	
8	Speaker/Headset Ring	S/H/BOTH	SPKR	SPKR: Speakerphone
9	Speakerphone/Headset	ON/OFF	ON	ON: Speakerphone
10	LCD Display LED	Ring/MWI	MWI	
11	Loop LCR Account	1: ON, 0: OFF	OFF	Station based LOOP LCR authorization option
12	Call Coverage	1: ON, 0: OFF	OFF	
13	Call Coverage Delay Ring	0~9	9	
14	Off-net Forward Disable	0:ENA, 1:DIS	Enable	Off-net Forward Activation (Except USA version)
15	Forced ICM Mode Change	1:ON, 0:OFF	OFF	
16	Active PTT Group	0~9		
17	Station ICM Tenancy Group	1~15	1	
18	VMIM/VSF Voice MailGateway			
19	SIP User ID Table Index MFIM & 100 Other MFIMs	 0~70 0~150		Index to Station SIP Attributes Table (PGM 126, Web only)
22	ICM Dial Tone Source	0: dial tone 1: Int/Ext 1 2: Ext 2 3: VSF	0	
23	ICM Ring Back Tone Source	0: ring back tone 1: Int/Ext 1 2: Ext 2 3: VSF	0	
24	UMS Attach Message	1: ON, 0: OFF	ON	
PGM Code: 112 -Station Attributes II				
1	CO Call Time Tone	1: ON, 0: OFF	OFF	
2	Automatic Hold	1: ON, 0: OFF	ATD:ON Others: OFF	
3	CO Call Time Restriction	1: ON, 0: OFF	OFF	
4	CO Line Access	EN/DIS	ENABLE	
5	CO/IP Line Queuing	EN/DIS	ENABLE	
6	CO PGM	EN/DIS	DISABLE	
7	Ringing Line Preference	EN/DIS	ENABLE	
8	Speed Dial Access	EN/DIS	ENABLE	
9	UCD Group Service	1: ON, 0: OFF	OFF	
10	Ring Group Service	1: ON, 0: OFF	OFF	
11	Two Way Record	1: ON, 0: OFF	OFF	
12	Message Speed Scroll	0-7	3	Scroll speed for Graphic LCD Key-set
13	Hot Desk Station	1:ON, 0:OFF	OFF	.
14	Prefer CO/CO Group	CO Access Code Or CO Group Access Code	..	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
15	Send SLT CLI	1:ON, 0:OFF	ON	Send CLI info to SLT/Soft/Wit phone.
16	ACD Member Priority	0 ~ 9	0	
17	ez Attendant Password	1: ON, 0: OFF	OFF	
18	Emergency CO	CO Access Code Or CO Group Access Code	Any CO	
19	Station Account code required	1: ON, 0: OFF	OFF	
20	Auto Call recording	1: ON, 0: OFF	OFF	
21	Call Recording Station	Station number		
22	Voice Mail Back-up	1: ON, 0: OFF	OFF	
23	VM Back-up Station	Station number		
24	VM Back-up Prompt	1: ON, 0: OFF	OFF	

PGM Code: 113 -Station Attributes III

1	ADMIN	EN/DIS	ENABLE	
2	VSF Access	EN/DIS	DISABLE	
3	Group Listen	EN/DIS	DISABLE	
4	Override Privilege	EN/DIS	DISABLE	
5	SMDR Hidden Dialed Digits	EN/DIS	DISABLE	
6	Voice Over	EN/DIS	ENABLE	
7	Prime Line	1: HOT, 0: WARM	WARM	
8	Alarm/Door Bell Attribute	EN/DIS	DISABLE	
9	DID Call Wait	1: ON, 0: OFF	OFF	
10	Left Msg Exe	1: ON, 0: OFF	OFF	
11	E&MIC Headset	1: ON, 0: OFF	OFF	For new Soft-Key Key-set
12	Enblock Mode	1: ON, 0: OFF	OFF	For new Soft-key Key-set
13	VSF Message Retrieve	1:FIFO, 0:LIFO	LIFO	
14	VMID Number	Station number	STA #	For adjunct Voice Mail-box id
15	Auto ACD DND	dial-pad digit	0	0=no reason code
16	Fwd if OOS	1: ON, 0: OFF	OFF	
17	Backlight	0 ~2	busy	0: Off, 1: busy, 2: always on
18	UMS Mail Server IP address	0.0.0.0		
19	UMS Mail Address			Web Admin 132 to modify

PGM Code: 114 -Station Attributes IV

1	CLIP Display	1: ON, 0: OFF	OFF	
2	COLP Display	1: ON, 0: OFF	OFF	
3	Progress Indication	1: ON, 0: OFF	OFF	
4	CLIR Service	1: ON, 0: OFF	OFF	
5	COLR Service	1: ON, 0: OFF	OFF	
6	CLI Station Number	Max 12 digits	Station	
7	3.1 kHz Audio	1: ON, 0: OFF	OFF	
8	CLI Name Display	1: ON, 0: OFF	OFF	
9	CLI/IP Redirect Display	1: Red, 0: CLI	CLI	
10	CLI Message Wait	1: ON, 0: OFF	OFF	
11	EXT OR ATD	1:ATD,0:EXT	EXT	
12	MSN Wait	1: ON, 0: OFF	OFF	

PGM Code: 115 -Flexible Buttons

01~24	Flexible Buttons Assignment	1: Empty Button	
		2: Station PGM Button	
		3: {Speed Dial xx} Button	00~19/200~999 – MFIM & 100 000~099/2000~4999 – Other MFIMs
		4: Numbering Plan Button	Feature Numbering Plan Code
		5: Network DSS Number	Network number in PGM 324
		6: MSN Number	

PGM Code: 116 -Station COS

Button	SUB-MENU	RANGE	DEFAULT	REMARK
1	Station COS: Day Ring	1~9	1	
2	Station COS: Night Ring	1~9	1	
3	Station COS: Timed Ring	1~9	1	
PGM Code: 117 -CO Line/IP Channel Group Access				
	CO/IP Group		1	
	MFIM & 100	01~20		
	Other MFIMs	01~72		
PGM Code: 118 -Internal Page Zone Access				
	Internal Page Zone Access		Group 01	
	MFIM & 100	01~10		
	Other MFIMs	01~35		
PGM Code: 119 -PTT Group Access				
	PTT Page Zone	01~10	0	
PGM Code: 120 -Preset Call Forward				
	Preset Call Forward	1~6 + destination	-	1: Unconditional Forward 2: Internal Busy Forward 3: Internal No Answer Forward 4: External Busy Forward 5: External No Answer Forward 6: Voice Mail box
PGM Code: 121 - Idle Line Selection				
	Type	1~4	-	1: Flex Button 2: CO Line 3: CO Group 4: Station Number
PGM Code: 122 -IP Call Access				
1	Direct IP Call	EN/DIS	ENABLE	
PGM Code: 123 -Station Timers				
1	Station Fwd No-Answer Timer	000~600	000	1 second increments
PGM Code: 124 -Linked Pair Station				
1	Set IP Address	xxx.xxx.xxx.xxx		
2	Router IP Address	xxx.xxx.xxx.xxx		
3	Set Mac Address	xx:xx:xx:xx:xx:xx		
4	Station Type	Button1~4		
4-1	IPKTU type usage	1:ON, 0:OFF	OFF	
4-2	SLT type usage	1:ON, 0:OFF	OFF	ON : First port is a linked pair station OFF: Second port is a linked pair station
	WKT type usage	1:ON, 0:OFF	OFF	
	Video/SoftPhone type usage	1:ON, 0:OFF	OFF	
5	Set Linked Attributes	Button1~3		
5-1	Direct Send (MAC)	1:ON, 0:OFF	OFF	Direct send using the device MAC address
5-2	Local Device	1:ON, 0:OFF	ON	Local(ON) / Remote(Off)
5-3	CODEC type	0-3	3	3(System) : Follow the PGM161 button 9 O: G.711, 1:G.723.1, 2: G.729, 3: SYSTEM
6	Registered Linked Stations	Station No.		Secondary station number
PGM Code: 125 - ICM Tenant Group				
1	Group Attendant	Station No.		
2	Group Access	Group 01~15	Group 01	
PGM Code: 126 SIP Attributes 2 (Web access only)				
	Register User Name	32 characters		
	Authentication User Name	32 characters		

Button	SUB-MENU	RANGE	DEFAULT	REMARK
	Authentication User Password	18 digits		
	Contact Number	Station number		
	Asc Station Number	Station number		
	User ID Register	Register Provision	Register	
	User ID Usage	1: ON, 0: OFF	OFF	
	Ring Route Type		User ID station	User ID Station, Ring Assignment, DID Conversion.
	DID Conversion Type	1 ~ 3		1: Use as is, 2: Convert, 3: Use Flex Table
	Number of Digits (2-4) Expected from DID Circuit	2 ~ 4	2	
	DID Digit Mask (4digits: *,#,0-9		#***	

TABLE D-4
BOARD (GATEWAY) DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 130 -H.323 VoIP Attributes				
1	H323 Setup Mode	0~1	0	0: Fast/1: Normal
2	H323 Tunneling Mode	1: ON, 0: OFF	OFF	0:Off/1:On
3	H323 DTMF Path	0~1	MFIM: Out VOIM: Inband	1:Out/0:In
4	H323 DiffServ Pre tagging	00~63	4	
5	RAS Usage	1: ON, 0: OFF	OFF	
6	RAS Multi-cast IP Address	IP address	224.0.1.41	
7	RAS Multi-cast IP port	Port number	1718	
8	RAS Uni-cast IP Address	IP address	82.134.80.2	
9	RAS Uni-cast IP port	Port number	1719	
10	RAS Keep-alive Timer	001 ~ 999	120	1 second increments
11	RAS Numbering Plan prefix	24 digits		
12	RAS Gateway Id	128 characters		Web Admin only
13	RAS Light RRQ	1: ON, 0: OFF	OFF	
14	TCP Keep Alive	1: ON, 0: OFF	ON	
PGM Code: 131 -T1/PRI Attributes				
1	T1 Setup Mode	0~1	D4	0:D4/1:ESF
2	T1 Line Mode	0~1	B8ZS	0: B8ZS/1:AMI
3	PRI Line Mode	0~1	TE	0:NT/1:NT
4	PRI CRC Check	1: ON, 0: OFF	ON	
5	E1 R2 DSP Check	1: ON, 0: OFF	ON	
6	DCO PX Type	1: S1240 2: TDX1B 3: STANDARD 4: CONGES_DIS	STANDARD	
PGM Code: 132 -Board Base Attributes				
1	Router IP address	IP Address		
2	Device CODEC Type	0-3	(3)SYSTEM	3: System Base follows PGM161-9th O: G.711, 1:G.723.1, 2: G.729, 3: SYSTEM
3	Firewall IP address	IP Address		
4	RTP Security	1: ON, 0: OFF	ON	
5	TNET Enable	1: ON, 0: OFF	ON	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
6	UMS Sender e-mail address	40 Characters		Web only to modify
Web Only: -SIP Gateway Attributes				
	Soft Switch Type		Normal	
	Proxy Server Address	IP address		
	Primary DNS	32 Characters		
	Secondary DNS	32 Characters		
	Use Outbound Proxy	1: ON, 0: OFF	OFF	
	Connection Mode	TCP/UP	UDP	
	181 Being Forwarded	1: ON, 0: OFF	OFF	
	100rel support	1: ON, 0: OFF	OFF	
	Use single codec only	1: ON, 0: OFF	OFF	
	Use rport method	1: ON, 0: OFF	OFF	
	Domain	32 Characters		
	Invite Acceptance	**0:Domain Only, 1:From All,**		
	Contact Address Domain	**0:SIP GW Addr, 1:Server Domain**		
	Proxy Registration Timer			
	Proxy Server Port	port	5060	
	Registration User ID range	User ID Table index		
	DTMF Type	**INBAND, 2833, INFO-DTMF, INFO-DTMF RELAY, INFO-TELEPHONE EVENT, INFO-NORTEL NETWORKS**		

TABLE D-5
CO LINE DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 140 -CO Service Attributes				
	CO Service Type	Flex 1~3	1(Normal)	1: Normal, 2: DID, 3: TIE Line
PGM Code: 141 -CO/IP Line Attributes I				
1	CO/IP Group Assignment MFIM & 100 Other MFIMs	 00~21 00~73	 (IP:20 , CO:01) (IP:72 , CO:01)	 Group 21 is for unused CO Lines and Group 73 is for unused IP Channels.
2	CO Line COS	1~5	1	
3	CO Start Signal	1: Ground, 0: Loop	Loop	
4	CO Line Type	1: PBX, 0: CO	CO	
5	CO Line Signal Type	1: DTMF, 0: Pulse	DTMF	
6	Flash Type	1: Ground, 0: Loop	Loop	
7	Universal Night Answer	1: ON, 0: OFF	OFF	
8	CO/IP Group Auth	1:ON, 0:OFF	OFF	
9	Data Station No	4 digits	0	FAX/Modem can be assigned to STA
10	Tenancy Group	00~ 15	00	
11	VoIP Protocol	1 ~ 3	1	1: iPECS, 2: H.323, 3: SIP
13	WAIT IF DVU BUSY	1: ON, 0: OFF	ON	
PGM Code: 142 -CO/IP Line Attributes II				
1	CO Line Name Display	1: ON, 0: OFF	OFF	
2	CO Line Name Assign	!2 characters	-	Max 12 character, alpha entry
3	Metering Unit	0~11	0	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
4	Line Drop using CPT	1: ON, 0: OFF	OFF	Not Supported
5	DISA Authorization Code	1: ON, 0: OFF	OFF	
6	CO Line MOH	0~3	1	0: none, 1: Int/Ext 1, 2 Ext 2, 3: VSF BGM
7	CO Dial Tone	1: ON, 0: OFF	OFF	
8	CO Ring Back Tone	1: ON, 0: OFF	OFF	
9	CO Error Tone	1: ON, 0: OFF	OFF	
10	CO Busy Tone	1: ON, 0: OFF	OFF	
11	DISA CO Access	1: ON, 0: OFF	ON	
12	CO Flash Timer	000~300	050	10 msec. Increments
13	Open Loop Detect Timer	00~20	04	100 msec. Increments
14	ICLID Detect Timer	00~20	00	1 sec. Increments
17	CO Line Dial Tone Source	0: dial tone 1: Int/Ext 1 2: Ext 2 3: VSF	0	
18	CO Line Ring Back Tone Source	0: ring backl tone 1: Int/Ext 1 2: Ext 2 3: VSF	0	
PGM Code: 143 -ISDN Line Attributes				
1	COLP Table Index MFIM & 100 Other MFIMs	 00~10 00~50	None	Entries are index reference to COLP Table PGM 201, 10(in MFIM) or PGM 201, 50(in MFIME) will provide station number if enabled in Station Attributes IV, ISDN COLP PGM 114 button 12
2	CLIP Table Index MFIM & 100 Other MFIMs	 00~10 00~50	None	Entries are index reference to COLP Table PGM 201, 10(in MFIM) or PGM 201, 50(in MFIME) will provide station number if enabled in Station Attributes IV, ISDN CLI Station PGM 114 button 12
3	EN-BLOC Sending	1: ON, 0: OFF	OFF	ON: En-bloc Sending Mode OFF: Overlap (as dialed) Sending Mode
4	Type Of Number	0~4	2	0: Unknown 1: International 2: National 3: Not used 4: Subscriber
5	DID Remove digit count	00~99	00	Received digits deleted from left
6	TEI Type	1: Auto, 0: Fixed	Auto	
7	ISDN-SS CD	0 ~ 3	Disable	0: Disable, 1: Deflect, 3: Reroute (Except USA version)
8	ISDN One Digit Remove	1: ON, 0: OFF	OFF	(For Italy)
9	Advice of Charge	0~6	0	0: None 1: Italy/Spain 2: Finland 3: Australia 4: Belgium 5: ETSI Standard
10	ISDN Line Type	1: μ-Law, 0: A-Law	μ-Law	
11	Calling Sub-address	1: ON, 0: OFF	OFF	
12	Incoming Prefix Code Insertion	1: ON, 0: OFF	OFF	
13	Outgoing Prefix Code Insertion	1: ON, 0: OFF	ON	
14	International Access Code	Max 4 digit		

Button	SUB-MENU	RANGE	DEFAULT	REMARK
15	My Area Code	Max 6 Digits		
16	My Area Prefix Code	Max 4 Digits		
17	CLI Transit Code	1:ORI 0:CFW	CFW	
18	Preserve Name for DID calls	1: ON, 0: OFF	OFF	
PGM Code: 144 -CO Ring Assignment				
1	Day	Station/Group		Flex 1: Station + Delay (0~9 ring cycles)
2	Night	Station/Group		Flex 2: Hunt
3	Timed Ring	Station/Group		Flex 3: VSF announcement (01~70) Flex 4: AA Ring delay Time (00~30 sec.)
PGM Code: 145 -DID Service Attributes				
1	DID Signal	1: Immediate 2: Wink 3: Delayed Dial	2: Wink	
2	DID conv Type	0-2	0	0: DID Data Conversion (PGM230) 1: call to the valid extension. 2: convert with Flex DID Table (PGM231)
3	DID Digit Receive Number	2-4	3	
4	DID Digit Mask	4 digits	#***	
PGM Code: 146 -DISA Service Attributes				
	DISA (Day/Night/Timed Ring)	Flex 1: Day Flex 2: Night Flex 3: Timed		Enter VMIM/VSF Announcement number.
PGM Code: 147 -CO Preset Forward Attributes				
1	Co Preset Forward Timer	00~20	00	1 second increments
2	ICLID Ring Table Index	001~250	None	
3	VMID Number	0000~9999	None	
PGM Code: 150 -NA ISDN Line Attributes				
1	Local Exchange Type	1~4	NI 1	1: NI 1 2: NI2 3: 5 ESS 4: NORTEL
2	SPID Number	9~20 digits		
3	Directory Number	20 digits		
4	EKTS Mode	1:EKTS/0:NONE	EKTS	
5	Type_for_7_8	0~5	0	
6	Type_for_10_11	0~5	0	
PGM Code: 151 ISDN Line Attributes				
1	T200	1~5	1	1 second increments
2	T201	1~5	1	1 second increments
3	T202	1~5	2	1 second increments
4	T203	05~15	10	1 second increments
5	T204	05~15	10	1 second increments
6	T302	10~30	15	1 second increments
7	T303	01~10	04	1 second increments
8	T305	10~60	30	1 second increments
9	T308	01~10	04	1 second increments
10	T309	001~100	090	1 second increments
11	T310	10~60	40	1 second increments
12	N200	1~5	3	
13	N201	250~300	260	bytes
14	N202	1~5	3	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
15	N204	1~5	1	
16	K-Value	1~5	1	
PGM Code: 152 T1 Line Attributes				
1	Pause Time	1~9	2	1 sec increments
2	Release Guard Time	01~60	20	100 msec increments
3	Dial-Tone Delay Time	02~50	10	100 msec increments
4	Inter-Digit Time	15~30	15	20 msec increments
5	Wink Time	07~15	10	20 msec increments
6	Pulse Rate	0~3	0	0 : 60-40(10pps) 1 : 66-33(10pps) 2 : 60-40(20pps) 3 : 66-33(20pps)
7	Seize DTC Time	000~127	003	20 msec increments
8	Release Time	000~127	007	20 msec increments
9	Address Signaling	1:DTMF, 0:Pulse	1: DTMF	
10	Ring Start Time	2~9	2	100 msec increments
11	Ring Stop Time	10~60	60	100 msec increments
12	Collect Digit	1~6	3	
13	Digit Store Time	01~15	15	1 sec increments
PGM Code: 153 DCOB CO Line Attributes				
1	Line Status	1~9	6	
2	DNIS Service	1: ON, 0: OFF	OFF	
3	Number of CLI Digits	01-15	10	
4	DCOB Type	0-2	2	
5	Call Category	1-9	1	

TABLE D-6
SYSTEM DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 160 -System Attributes I				
1	Attendant Call Queuing Ring-Back Tone	1: RBT, 0: MOH	MOH	
2	Camp-on, MOH/Ring-Back Tone	1: RBT, 0: MOH	MOH	
3	CO Dial-Tone Detect	1: ON, 0: OFF	OFF	
4	CO Line Choice	0 ~ 2	Last	0: Round Robin,1: Last Used, 2: First
5	DISA Retry Counter	1~9	3	
6	External Night Ring	1: ON, 0: OFF	OFF	
7	Hold Preference	1: Sys, 0: Excl	System	System/Exclusive Hold
8	Print LCR Converted Digit	1: LCR, 0: User	LCR	
9	Attendant Call Queue Available	1: ON, 0: OFF	OFF	
10	All Attendant PGM '0' Access	1: ON, 0: OFF	OFF	(Except USA version)
11	Off-Net Prompt Usage	1:ON, 0:OFF	ON	(Except USA version)
12	Unsupervised Conf Timer Extension	1: ON, 0: OFF	OFF	
13	ACD Information Print	1: ON, 0: OFF	OFF	
14	Call Log List Number	15~50	15	
15	Off-net DTMF Tone	1:ON, 0:OFF	OFF	
16	FAC Retry Counter	1 ~ 9	3	
17	Conference Room Telephone number	8 digits		
PGM Code: 161 -System Attributes II				
1	Off-Hook Ring Signal Type	1: Mute, 0: Burst	Mute	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
2	Page Warning Tone	1: ON, 0: OFF	ON	
3	Privacy	1: ON, 0: OFF	ON	
4	Privacy Warning Tone	1: ON, 0: OFF	ON	
5	ACD PRNT Enable	1: ON, 0: OFF	OFF	
6	ACD PRNT Timer	001~255	001	10 second increments
7	ACD Clear after PRNT	1: ON, 0: OFF	OFF	
8	Override 1st CO Group	1: ON, 0: OFF	ON	
9	Base Codec Type	0-2	0: G711	0: G711, 1: G.723.1, 2: G.729
10	G.711 Packetization	0~250	20	1 msec increments
11	G.723 Packetization	0~255	30	1 msec increments
12	Network Time/Date	0:DISABLE, 1:ISDN CLOCK, 2:NTP	DISABLE	(USA version do not support ISDN CLOCK)
13	Incoming Call Toll Check	1: ON, 0: OFF	OFF	
14	Web Server TCP port	TCP ports	00080	
15	Web Password Security	1: ON, 0: OFF	OFF	
16	Non-index Auth Code Use	1: ON, 0: OFF	ON	
17	COS 7 on Auth code entry failure	1: ON, 0: OFF	OFF	
18	Unified Serial Message Output	1: ON, 0: OFF	OFF	
19	Two-way Record Warning Tone	1: ON, 0: OFF	OFF	
20	CPU Redundancy	1: ON, 0: OFF	OFF	
PGM Code: 162 -System Password				
1	User Password	Max 12 digits	-	
2	Admin Password	Max 12 digits	-	
3	Maint Password	Max 12 digits	-	
PGM Code: 163 -Alarm Attributes				
1	Alarm Enable	1: ON, 0: OFF	OFF	
2	Alarm Contact Type	1: Close, 0: Open	Close	
3	Alarm/Door Bell Mode	1: Alarm 0: Door-Bell	Alarm	
4	Alarm Signal Mode	1: Repeat 0: Once	Repeat	
PGM Code: 164 -Attendant Assignment				
1~4 or 5	Attendant Assignment	Station	1: 100	MFIM & 100, buttons 1~4 Other MFIMs, buttons 1 ~ 5
PGM Code: 165 -Multicast RTP / RTCP				
1	Multicast RTP MFIM Other MFIMs	 Flex 1 – 28 Flex 1 – 54	 8100 - 8156 8100 - 8206	 Max 4 digit
2	Multicast RTCP MFIM Other MFIMs	 Flex 1 – 28 Flex 1 – 54	 8101 - 8157 8101 - 8207	 Max 4 digit
PGM Code: 166 -DISA COS				
1	Day COS	1~9	1	
2	Night Ring COS	1~9	1	
3	Timed Ring COS	1~9	1	
PGM Code: 167 -DID/DISA Destination				
1	Busy Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
2	Error Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
3	No Answer Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
4	DID VSF Prompts	Flex 1~5	Flex 1~5: ON	1: 0N, 0: OFF

Button	SUB-MENU	RANGE	DEFAULT	REMARK
5	Reroute Busy Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
6	Reroute Error Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
7	Reroute No Answer Destination	Flex 1~3	Flex 1(Tone)	F1: Tone, F2: Attendant, F3: Hunt
PGM Code: 168 -External Control Contacts				
1	First Contact	1~4	-	1: LBC, 2: Door, 3: Ext. 1, 4: Ext. 2
2	Second Contact	1~4	-	1: LBC, 2: Door, 3: Ext. 1, 4: Ext. 2
3	Third Contact	1~4	-	1: LBC, 2: Door, 3: Ext. 1, 4: Ext. 2
4	Forth Contact	1~4	-	1: LBC, 2: Door, 3: Ext. 1, 4: Ext. 2
PGM Code: 169 -LCD Date/Time & Language Mode				
1	Date Display Mode	1: MMDDYY 0: DDMMYY	DDMMYY	
2	Time Display Mode	1: 12H, 0: 24H	12H	
3	Language Display Mode	00~14	00 (Eng)	
4	Weekday Display Mode	0~2	0	0 : PGM 169 BTN 1, 1 : MM/DD WDY,2 : MM DD WDY
PGM Code: 170 -Flexible Button LED Flashing Rate				
1	CO Incoming Ring Flashing Rate	00~14	2(30 IPM)	
2	CO Transfer Ring Flashing Rate	00~14	10(120 IPM)	
3	CO Queue Ring Flashing Rate	00~14	6(240 IPM Flutter)	
4	CO Recall Ring Flashing Rate	00~14	7(480 IPM Flutter)	
5	CO I Hold Flashing Rate	00~14	12(30 IPM WINK)	
6	CO System Hold Flashing Rate	00~14	3(60 IPM)	
7	CO Exclusive Hold Flashing Rate	00~14	10(120 IPM)	
8	CO Out-going disabled Flashing Rate	00~14	6(240 IPM Flutter)	
9	CO incoming call off-net forward Flashing Rate	00~14	6(240 IPM Flutter)	
10	CO DISA Indication Flashing Rate	00~14	5(240 IPM)	
11	CO supplementary call waiting Flashing Rate	00~14	6(240 IPM Flutter)	
12	CO Supplementary Hold Flashing Rate	00~14	8(480 IPM)	
13	DSS button Flashing Rate for CO Ring	00~14	2(30 IPM)	
14	DSS button Flashing Rate for ICM all Call	00~14	3(60 IPM)	
15	DSS button Flashing Rate for ICM Ring associate.	00~14	10(120 IPM)	
16	DSS button Flashing Rate for a station in DND	00~14	3(60 IPM)	
17	DSS button Flashing Rate for a station in Lock-out	00~14	7(480 IPM Flutter)	
18	DSS button Flashing Rate for a station in pre-selected message mode	00~14	2(30 IPM)	
19	DSS button Flashing Rate for a station in ICM Hold	00~14	3(60 IPM)	
20	DSS button Flashing Rate for a station in other case	00~14	10(120 IPM)	
21	CIQ #1 Threshold	00~14	3(60 IPM)	
22	CIQ #2 Threshold	00~14	10(120 IPM)	
23	CIQ #3 Threshold	00~14	5(240 IPM)	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
24	ACD DND button	00~14	10(120 IPM)	
25	ACD Warning tone	00~14	10(120 IPM)	
26	ACD Help Button	00~14	10(120 IPM)	
27	Voice Record button	00~14	5(240 IPM)	
28	Message Wait button	00~14	2(30 IPM)	
PGM Code: 171 -Music Source				
1	BGM Type	0~3	1	0: No, 1 Music1, 2: Music 2, 3: VMIM/VSF
2	MOH Type	0~3	1	0: No, 1 Music1, 2: Music 2, 3: VMIM/VSF
3	Int/Ext1 Music	0: Internal 1: External	Internal	0: Internal source, 1: External Source
PGM Code: 172 -PBX Access Codes				
1 – 4	PBX Access Code	Max 2 digits	-	Maximum 4 PBX access code
PGM Code: 173 -Ringing Line Preference Priority				
1	Transfer CO Call	1~4	1	
2	Recalling CO Call	1~4	2	
3	Incoming CO Call	1~4	3	
4	Queued CO Call	1~4	4	
PGM Code: 174 -RS-232 Port Settings				
1	Baud Rate	1~6	38400	1: Not Used 2: 9600 BAUD 3: 19200 BAUD 4: 38400 BAUD 5: 57600 BAUD 6: 115200 BAUD
2	CTS/RTS	1: ON, 0: OFF	OFF	
3	Page Break	1: ON, 0: OFF	OFF	
4	Line Page	001~199	066	
5	XON/XOFF	1: XON, 0: XOFF	XOFF	
PGM Code: 175 -Serial Port Function Selection				
	Print Port Selection	Flex 1~2		Flex 1: Dynamic, Flex 2: Static
1	Select dynamic port		SERIAL1	1-2: Serial, 3-5: dynamic TCP port
1-1	Off-line SMDR/Statistics Print	1~5	SERIAL1	
1-2	Admin Print	1~5	SERIAL1	
1-3	Traffic Print	1~5	SERIAL1	
1-4	SMDI Print	1~5	SERIAL1	
1-5	Call Info Print	1~5	SERIAL1	
1-6	On-line SMDR Print	1~5	SERIAL1	
1-7	Trace Print	1~5	SERIAL1	
1-8	Debug Print	1~5	SERIAL1	
1-9	ACD Package Print	1~5	SERIAL1	
2	Select Static Port			
2-1	Off-line SMDR/Statistics Print	1-9999	NULL	
2-2	Admin Print	1-9999	NULL	
2-3	Traffic Print	1-9999	NULL	
2-4	SMDI Print	1-9999	NULL	
2-5	Call Info Print	1-9999	NULL	
2-6	On-line SMDR Print	1-9999	NULL	
2-7	Trace Print	1-9999	NULL	
2-8	Debug Print	1-9999	NULL	
2-9	ACD Package Print	1-9999	NULL	

PGM Code: 176 - Break/Make Ratio

Button	SUB-MENU	RANGE	DEFAULT	REMARK
1	Break/Make ratio	1: 66/33 0: 60/40	60/40	
PGM Code: 177 -SMDR Attributes				
1	SMDR Save Enable	1: ON, 0: OFF	OFF	
2	SMDR Print Enable	1: ON, 0: OFF	ON	ON: Real-time, OFF: On-demand
3	SMDR Recording Call Type	1: LD, 0: ALL	LD	LD: Long Distance, ALL: All
4	SMDR LD Call Digit Counter	07~15	07	
5	Print Incoming Call	1: ON, 0: OFF	OFF	
6	Print Lost Call	1: ON, 0: OFF	ON	
7	Records in Detail	1: ON, 0: OFF	ON	
8	SMDR Dial Digit Hidden	0~9	0	
9	SMDR Currency	3 Characters	-	
10	SMDR Cost Per Unit Pulse	6 digits	000000	
11	SMDR Decimal Location	0~5	0	
12	SMDR Start Timer	000~250	000	1 sec increments
13	SMTP Mail Server Address	12 digits		
14	User Mail Address	e-mail address		40 character modify via Web only
	SMDR System Domain Name	18 characters		Web only
15	Mail Send Weekly Set	0-7	0	
16	Mail Send Daily Set	00-23	00	
17	Auto Send Mode	1: ON, 0: OFF	OFF	
18	Auto Delete Mode	1: ON, 0: OFF	OFF	
19	SMDR Long Distance Codes	Flex 1~Flex 5	0	Maximum 5 LD codes, 2 digits each
20	SMDR Ring/CLI/CPN (SVC_1)	0:Ring, 1:CLI, 2:CPN 3: None	RING	For incoming call, 0: Ring Service Time, 1: CLI, 2: CPN, 3: None Dialed number for out going call
21	MSN Print on SMDR	1: ON, 0: OFF	OFF	
22	SMDR Ring/CLI/CPN (SVC_2)	0:Ring, 1:CLI, 2:CPN, 3:None	NONE	For incoming call, 0: Ring Service Time, 1: CLI, 2: CPN, 3: None
23	Print Serial No	1: ON, 0: OFF	OFF	
24-1	Hidden digit location	1: Right, 0: Left	Left	
24-2	SMDR Interface Service	1: ON, 0: OFF	OFF	
24-3	SMDR ICM Save	1: ON, 0: OFF	OFF	
24-4	SMDR ICM Print	1: ON, 0: OFF	OFF	
24-5	SMDR Disconnect Cause	1: ON, 0: OFF	OFF	
PGM Code: 178 -System Date & Time				
1	System Time	4 digits	-	Hour/Minute sequence.
2	System Date	6 digits	-	Month/Day/Year sequence
3	DST Enable Mode	1: ON, 0: OFF	-	Activate / deactivate DST ability
4	DST Start Time		-	Web Only, DST Table format
5	DST End Time		-	Web Only, DST Table format
PGM Code: 179 -Multi-Language Support				
1	1st language	1: ON, 0: OFF	ON	
2	2nd Language	1: ON, 0: OFF	OFF	
3	3rd Language	1: ON, 0: OFF	OFF	
PGM Code: 180 -System Timers I				
1	ATD Recall Timer	00~60	30	1 min increments
2	Call Park Timer	000~600	120	1 sec increments
3	Camp-On Recall Timer	000~200	030	1 sec increments
4	Exclusive Hold Recall Timer	000~300	060	1 sec increments
5	I-Hold Recall Timer	000~300	030	1 sec increments
6	System Hold Recall Timer	000~300	030	1 sec increments

Button	SUB-MENU	RANGE	DEFAULT	REMARK
7	Transfer Recall Timer	000~300	030	1 sec increments
8	ACNR Delay Timer	000~300	030	1 sec increments
9	ACNR Pause Timer	030~300	030	1 sec increments
10	ACNR Retry Counter	1~13	3	
11	ACNR Tone Detect Timer	001 –300	030	1 sec increments
12	Automatic CO Release Timer	000~300	030	1 sec increments
13	CCR Inter-digit Timer	000~300	030	100 msec increments
14	CO Restrict Timer	00~99	00	1 minute increments
15	CO Dial Delay Timer	00~99	01	100 msec increments
16	CO Release Guard Timer	010~150	020	100 msec increments
17	CO Ring Off Timer	010~150	060	100 msec increments
18	CO Ring On Timer	1~9	2	100 msec increments
19	CO Elapsed Call Timer	060~900	180	1 sec increments
20	Web Password Guard Timer	001~999	005	1 min increments
PGM Code: 181 -System Timers II				
1	Call Fwd No Answer Timer	000~600	015	1 sec increments
2	DID/DISA No Answer Timer	00~99	20	1 sec increments
3	VSF User Max Record Timer	000~999	60	1 sec increments
4	VSF Valid User Message Timer	0~9	4	1 sec increments
5	Door Open Timer	05~99	20	100 msec increments
6	ICM Dial Tone Timer	01~20	10	1 sec increments
7	Inter-Digit Timer	01~20	05	1 sec increments
8	Message Wait Reminder Tone Timer	00~60	00	1 min increments
9	Paging Timeout Timer	000~255	015	1 sec increments
10	Pause Timer	1~9	3	1 sec increments
11	3-Soft Auto Release Timer	01-30	30	1 sec increments (Reserved for new keyset)
12	VM Pause Timer	01-90	30	100 msec increments (Except USA version)
PGM Code: 182 -System Timers III				
1	SLT Hook Switch Bounce Timer	01~25	01	100 msec increments
2	SLT Max Hook Switch Flash Timer	01~25	10	100 msec increments
3	SLT Min Hook-flash Timer	000~250	030	10 msec increments
4	Station Auto Release Timer	000~300	060	1 sec increments
5	Unsupervised Conference Timer	00~99	10	1 minute increments
6	Prime Line Delay Timer	01~20	05	1 sec increments
7	Wink Timer	010~200	010	10 msec increments
8	Enblock Inter-Digit Timer	01~20	5	1 sec increments
9	DTMF Duration Timer	04~99	10	10 msec increments
10	Flexible DID Timer	01~99	30	100 msec increments
PGM Code: 186 - DCOB System Attributes				
1	R2 Out manage Timer	01~50	14	1 sec increments
2	R2 Incoming manage Timer	01~50	14	1 sec increments
3	R2 Disappear Timer	01~50	14	1 sec increments
4	R2 Pulse Timer	01~30	07	20 msec increments
5	R2 Ready Timer	000~500	007	20 msec increments
6	R2 Dial tone Delay Timer	01~30	20	1 sec increments
Web Only: - Web Access Authorization				
	User Access Level	ON/OFF	ON	Each PGM CODE
	Admin Access Level	ON/OFF	ON	Each PGM CODE

Web Only: - Speed Dial List

Button	SUB-MENU	RANGE	DEFAULT	REMARK
	CO Type			
	CO Value			
	Dial Digits			
	Name			
Web Only: - Custom Messages				
	Message 11 ~ 20	24 Characters		
PGM Code: 195 – NTP Attributes				
1	Network Time/Date	0-2		TIME SOURCE

TABLE D-7
STATION GROUP DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 190 -Station Group Assignment, 620 – 659				
1	Group Type	0~9	0	0: No Assignment 1: Circular 2: Terminal 3: ACD 4: Ring 5: VM 6: Pick-Up 7: VSF-VM 8: FS-VM 9: NET-VM 10: UCS
2	Pick-up Attribute	1: ON, 0: OFF	OFF	Not applicable VM group
3	Member assignment	Station	-	Not applicable VM group
PGM Code: 191 -Station Group Attributes, by Group Type				
	CIRCULAR GROUP			
1	VSF Announce 1 Timer	000~999	015	1 second increments
2	VSF Announce 2 Timer	000~999	000	1 second increments
3	VSF Announce 1 Location	00~70	00	
4	VSF Announce 2 Location	00~70	00	
5	VSF Announce 2 Repeat Timer	000~999	000	1 second increments
6	VSF Announce 2 Repeat	1: ON, 0: OFF	OFF	
7	Overflow Destination	Station/Group/VSF/ Speed	-	
8	Overflow Timer	000~600	180	1 second increments
9	Wrap-Up Timer	002~999	002	1 second increments
10	No Answer Timer	00~99	15	1 second increments
11	Pilot Hunt	1: ON, 0: OFF	ON	
12	Report No Member	1: ON, 0: OFF	OFF	
13	Music Source	0~2	1	
14	Member Forward	1: ON, 0: OFF	ON	
	Mailbox Message Wait Station	Station Number	None	
	Mailbox Password	12 digits	None	
19	WAIT IF 1ST ANNC BUSY	1: ON, 0: OFF	ON	
	TERMINAL GROUP			
1	VSF Announce 1 Timer	000~999	015	1 second increments
2	VSF Announce 2 Timer	000~999	0	1 second increments
3	VSF Announce 1 Location	00~70	00	
4	VSF Announce 2 Location	00~70	00	
5	VSF Announce 2 Repeat Timer	000~999	000	1 second increments

Button	SUB-MENU	RANGE	DEFAULT	REMARK
6	VSF Announce 2 Repeat	1: ON, 0: OFF	OFF	
7	Overflow Destination	Station/Group/VSF/ Speed	-	
8	Overflow Timer	000~600	180	1 second increments
9	Wrap-Up Timer	002~999	002	1 second increments
10	No Answer Timer	00~99	15	1 second increments
11	Pilot Hunt	1: ON, 0: OFF	ON	
12	Report No Member	1: ON, 0: OFF	OFF	
13	Music Source	0~2	1	
14	Member Forward	1: ON, 0: OFF	ON	
	Mailbox Message Wait Station	Station Number	None	
	Mailbox Password	12 digits	None	
19	WAIT IF 1ST ANNC BUSY	1: ON, 0: OFF	ON	
	UCD/ACD GROUP			
1	VSF Announce 1 Timer	000~999	15	1 second increments
2	VSF Announce 2 Timer	000~999	000	1 second increments
3	VSF Announce 1 Location	00~70	00	
4	VSF Announce 2 Location	00~70	00	
5	VSF Announce 2 Repeat Timer	000~999	00	1 second increments
6	VSF Announce 2 Repeat	1: ON, 0: OFF	OFF	
7	Overflow Destination	Station/Group/VSF/ Speed	-	
8	Overflow Timer	000~600	180	1 second increments
9	Wrap-Up Timer	002~999	002	1 second increments
10	Report No Member	1: ON, 0: OFF	OFF	
11	Music Source	0~3	1	
12	ACD Warning Tone	1: ON, 0: OFF	ON	
13	Alternate Destination	Station/Group /Speed		
14	Supervisor Timer	000~999	030	1 second increments
15	Supervisor Call Count	00~99	00	
16	WAIT IF 1ST ANNC BUSY	1: ON, 0: OFF	ON	
17	Maximum Queued Call Counter	00~99	99	
18	Supervisors	Station	-	Max, 5 station can be supervisors
19	UCD/ACD Station Priority	0~9	0	
20	ACD DND Wrap-up Timer	002~200	010	1 second increments
21	ACD ICLID Usage	1: ON, 0: OFF	OFF	When guaranteed announcement is used
22	ACD Group Name	12 Character	.	
23	ACD CIQ Route	Flex 1 ~ 10		Flex 10 : when caller dial “0” Flex 1~9 : caller digit 1~9 Ex.) When Flex 1 is pressed 1: Station Number 2: Hunt Group Number 3: System Speed Number 4: Network Station Number
24	ACD Sub Attribute	Flex 1-20		
24-1	Zap Tone	1: ON, 0: OFF	OFF	
24-2	Mailbox Message Wait Station	Station Number	None	
24-3	Mailbox Password	12 digits	None	
24-4	Call In Queue Display	1: ON, 0: OFF	OFF	
24-5	Call In Queue Display Timer	008~300	030	1 second increments

Button	SUB-MENU	RANGE	DEFAULT	REMARK
24-6	Call In Queue #1 Threshold	00~99	10	
24-7	Call In Queue #1 Announcement Location	00~70		
24-8	Call In Queue #1 Page zone	00~15 00~40	00	MFIM & 100, 00 ~15 Other MFIM, 00 ~ 40
24-9	Call In Queue #1 Announcement Delay Timer	000~180	015	1 second increments
24-10	Call In Queue #1 Announcement Repeat Timer	000~180	045	1 second increments
24-11	Call In Queue #2 Threshold	00~99	20	
24-12	Call In Queue #2 Announcement Location	00~70		
24-13	Call In Queue #2 Page zone	00~15 00~40	00	MFIM & 100, 00 ~15 Other MFIM, 00 ~ 40
24-14	Call In Queue #2 Announcement Delay Timer	000~180	015	1 second increments
24-15	Call In Queue #2 Announcement Repeat Timer	000~180	025	1 second increments
24-16	Call In Queue #3 Threshold	00~99	30	
24-17	Call In Queue #3 Announcement Location	00~70		
24-18	Call In Queue #3 Page zone	00~15 00~40	00	MFIM & 100, 00 ~15 Other MFIM, 00 ~ 40
24-19	Call In Queue #3 Announcement Delay Timer	000~180	015	1 second increments
24-20	Call In Queue #3 Announcement Repeat Timer	000~180	005	1 second increments
24-21	Call in Queue Mention	1: ON, 0: OFF	OFF	
24-22	ACD No-answer Timer	000 ~ 180	000	1 second increments
24-23	Member Forward	1: ON, 0: OFF	ON	
	RING GROUP			
1	VSF Announce 1 Timer	000~999	015	1 second increments
2	VSF Announce 2 Timer	000~999	00	1 second increments
3	VSF Announce 1 Location	00~70	00	
4	VSF Announce 2 Location	00~70	00	
5	VSF Announce 2 Repeat Timer	000~999	000	1 second increments
6	VSF Announce 2 Repeat	1: ON, 0: OFF	OFF	
7	Overflow Destination	Station/Group/VSF/ Speed	-	
8	Overflow Timer	000~600	180	1 second increments
9	Wrap-Up Timer	002~999	002	1 second increments
10	Music Source	0~3	1	
11	Maximum Queued Call Counter	00~99	99	
12	Member Forward	1: ON, 0: OFF	ON	
	Mailbox Message Wait Station	Station Number	None	
	Mailbox Password	12 digits	None	
17	WAIT IF 1ST ANNC BUSY	1: ON, 0: OFF	ON	
	External VM GROUP			
1	Wrap-Up Timer	002~999	002	1 second increments
2	Put Mail Index	1~4	1	
3	Get Mail Index	1~4	2	
4	VM Group Hunt Type	1: Circular 0: Terminal	Terminal	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
5	Overflow Timer	000~600	180	1 second increments
6	Overflow Destination	Station/Group or System Speed	-	
	PICK-UP GROUP			
1	Auto Pick-Up	1: ON, 0: OFF	OFF	
2	All Group Member Ringing	1: ON, 0: OFF	OFF	
	VSF-VM GROUP			
1	Timer Set (1d)	001 ~ 365	365	1 Day increments
2	Time Out (1s)	00 ~ 15	15	1 second increments
	FS-VM GROUP			
1	VSF Announce 1 Timer	000~999	15	1 second increments
2	VSF Announce 2 Timer	000~999	000	1 second increments
3	VSF Announce 1 Location	00~70	00	
4	VSF Announce 2 Location	00~70	00	
5	VSF Announce 2 Repeat Timer	000~999	00	1 second increments
6	VSF Announce 2 Repeat	1: ON, 0: OFF	OFF	
7	Overflow Destination	Station/Group/VSF/ Speed	-	
8	Overflow Timer	000~600	180	1 second increments
9	No Answer Timer	00~99	15	1 second increments
10	Pilot Hunt	1: ON, 0: OFF	ON	
11	Alternate Destination	Station/Group		
12	Hunt Type	1: Circular 0: Terminal	Terminal	
13	Wrap-Up Timer	002~999	002	1 second increments
	UCS GROUP			
	Select UCS	Flex 1		
1	UCS Server	00 ~ 16	1	Only selection 1 is supported.

TABLE D-8
ISDN LINE & ICLID ROUTING DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 200 -ISDN Attributes				
1	CO ATD CODE	2 digits	-	
2	CLI Print To Serial	1: ON, 0: OFF	OFF	
PGM Code: 201 -CLIP/COLP Table				
1	CLIP/COLP Table			
	MFIM & 100	00~09	-	Max 10 digits, see also PGM 143 btn 1 & 2
	Other MFIM	00~49		
PGM Code: 202 -MSN Table				
1	CO Line number			
	MFIM & 100	01~42		
	Other MFIMs	001~200 or 400		
2	Index	000~999		Index to PGM 231 Table
3	Telephone number	23 digits		
PGM Code: 203 -ICLID Route Table				
1	Index	001~250	-	The bin no of PGM Code 204
2	ICLID Telephone number	24 digits	-	
3	ICLID Name	12 characters		
PGM Code: 204 -ICLID RING Assignment Table				
1	Day	Station/Group		Flex 1: Station + Delay (0~9 ring cycles)
2	Night	Station/Group		

Button	SUB-MENU	RANGE	DEFAULT	REMARK
3	Timed Ring	Station/Group		Flex 2: Hunt Flex 3: VSF announcement (01~70) Flex 4: AA Ring delay Time (00~30 sec.)
PGM Code: 205 -PPP Attributes				
1	PPP Destination Station number	Station Number	None	
2	PPP User ID 1	12 Characters	likppp01	
3	PPP Password 1	12 Characters	Ipkts01	
4	PPP User ID 2	12 Characters	likppp02	
5	PPP Password 2	12 Characters	ipkts02	

Table D-9
TABLES DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 220 -LCR Assignment				
1	LCR Access Mode	1~6	1: M00	1: M00 2: M01 3: M02 4: M11 5: M12 6: M13
2	Set the Day of week zone			
	1	MON	1~3	1
	2	TUE	1~3	1
	3	WED	1~3	1
	4	THUR	1~3	1
	5	FRI	1~3	1
	6	SAT	1~3	1
	7	SUN	1~3	1
3	Set the Time Zone of Day zone 1			
	1	00~24		
	2	00~24		
	3	00~24		
4	Set the Time Zone of Day zone 2			
	1	00~24		
	2	00~24		
	3	00~24		
5	Set the Time Zone of Day zone 3			
	1	00~24		
	2	00~24		
	3	00~24		
PGM Code: 221 -LCR LDT Table				
1	LCR Type	1~3	3	1: Internal 2: CO Line, 3: Both
2	Code (leading digit)	Max 12 digits	-	
3	Day Zone 1 DMT	6 digits		Time Zone 1~3: 2 digits each
4	Day Zone 2 DMT	6 digits		Time Zone 1~3: 2 digits each
5	Day Zone 3 DMT	6 digits		Time Zone 1~3: 2 digits each
6	Check Password	1: ON, 0: OFF	OFF	LCR code authorization
PGM Code: 222 -LCR DMT Table				
1	Added Digit	Max 25 digits		
2	Removal Position	01~12	01	
3	Number of Remove digits	01~12	00	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
4	Add Position	01~13	01	
5	CO Group MFIM & 100 Other MFIMs	 01~20 01~72	01	
6	Alt Index	0~99	-	
PGM Code: 223 -LCR Table Initialization				
1	DMT Of Day zone 1	6 digits		Time Zone 1~3: 2 digits each
2	DMT Of Day zone 2	6 digits		Time Zone 1~3: 2 digits each
3	DMT Of Day zone 3	6 digits		Time Zone 1~3: 2 digits each
4	CO Group Init MFIM & 100 Other MFIMs	 01~20 01~72		
5	Alt Index Init	0~99		
6	Init All LCR			
PGM Code: 224 -TOLL Table				
1	Allow Table A (01~50)	Max 20 digits	-	
2	Deny Table A (01~50)	Max 20 digits	-	
3	Allow Table B (01~50)	Max 20 digits	-	
4	Deny Table B (01~50)	Max 20 digits	-	
5	Allow Table C (01~50)	Max 20 digits	-	
6	Deny Table C (01~50)	Max 20 digits	-	
7	Allow Table D (01~50)	Max 20 digits		
8	Deny Table D (01~50)	Max 20 digits		
9	Allow Table E (01~50)	Max 20 digits		
10	Deny Table E (01~50)	Max 20 digits		
PGM Code: 226 -Emergency Code Table				
	Emergency Code Table (01~10)	Max 15 digits		
PGM Code: 227 -Authorization Code Table				
	Table entry	Max 12 digits		Flex 1: Station Flex 2 System
PGM Code: 228 -Customer Call Routing Table				
	CCR Table index	01 ~ 20		
1~10	Select Flex 1 ~ 10	Station	-	1: Station 2: Hunt Group 3: System Speed 4: PABX Xfer 5: VSF Announcement 6: Call Disconnect Announcement 7: Route to Networked Station
PGM Code: 229 -Executive/Secretary Table				
1	Executive/Secretary Pair	Station		10 entries for MFIM & 100 35 entries for other MFIMs
2	CO Call to Secretary	ON/OFF	OFF	
3	Call to Exec if Secretary in DND	ON/OFF	OFF	
4	Executive grade	01 ~ 12	12	
PGM Code: 231 -Flexible DID Table				
1	DID Destination Name	11 characters	-	
2	Day Destination	1~6	-	1: station 2: group 3: System
3	Night Destination	1~6	-	
4	Timed Ring Destination	1~6	-	

Button	SUB-MENU	RANGE	DEFAULT	REMARK
5	Reroute Destination	1~6	-	4: PBX Xfer 5: VSF 6: VSF & Disconnect 7: Networked Station 8: Conference Room
6	Use ICLID	ON/OFF	OFF	
PGM Code: 232 -System Speed Zone				
1	Speed Bin Range in Zone MFIM & 100 MFIMs Other MFIMs	 200~999 2000~4999	-	
2	Station Range MFIM & 100 MFIME & 300 MFIM600s	 100~169 100~399 1000~1500	-	
3	Toll Checking	1: ON, 0: OFF	ON	
PGM Code: 233 Day/Nite/Timed RING Table				
1	Monday Timer	0000~2359		Assign Day, Night and Timed start times Default 0900, 1800, none
2	Tuesday Timer	0000~2359		
3	Wednesday	0000~2359		
4	Thursday	0000~2359		
5	Friday	0000~2359		
6	Saturday	0000~2359		
7	Sunday	0000~2359		
PGM Code: 234 -Voice Mail Dial Table				
1~9	VM dial codes 1~9	12 digits	-	0: Prefix/1: Suffix
PGM Code: 235 -Registration Table				
1	Mac Address Information	xx:xx:xx:xx:xx:xx	-	Regardless of registration DIP-switch, this device can be registered
2	Max port of device	00~99	0	
PGM Code: 236 -Mobile Extension Table				
1	Program Authority	1: ON, 0: OFF	0: OFF	
2	Access Authority	1: ON, 0: OFF	0: OFF	
3	CO Group MFIM & 100 MFIMs Other MFIMs	 00~24 00~72	01	
4	Telephone number			
5	Mobile extension CLI			
6	Hunt Call enable	1: ON, 0: OFF	0: OFF	
7	VSF/VMIM Notify	1 : USE 0 : NOT USE	0 : NOT USE	
8	Notify Retry	1 to 9 Times	3 Times	
9	Retry Interval	1 to 3 minute	3 minute	
PGM Code: 250 -Hot Desk Attributes				
1	Number of Agents MFIM & 100 MFIME & 300 MFIM600 MFIM1200	 00~64 000~300 000-400 000~600	10	
2	View Agent Range		390~399	
3	Auto Logout Timer	00~24	00	1 hours increments

TABLE D-10
NETWORK DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 320 -Network Basic Attributes				
1	Networking Enable	1: ON, 0: OFF	0: OFF	
2	Retry Count	00~99	00	
3	CNIP Enable	1: ON, 0: OFF	1: ON	
4	CONP Enable	1: ON, 0: OFF	0: OFF	
5	Signal Method	1: FAC 0: UUS	1: FAC	
6	CAS Enable	1: ON, 0: OFF	0: OFF	(Not used)
7	VPN Enable	1: ON, 0: OFF	0: OFF	(Reserved for future)
8	CC Retain Mode	1: ON, 0: OFF	0: OFF	(Not used)
PGM Code: 321 -Network Supplementary Attributes				
1	Transfer Mode	1: REROUTE, 0: JOIN	1: REROUTE	
2	TCP Port for BLF	0000~9999	9500	
3	UDP Port for BLF	0000~9999	9501	
4	BLF Manager IP Address	IP address	0.0.0.0	(#: Skip)
5	Duration of BLF STS	01~99	10	100 milli-second increments
6	Multicast IP Address	IP address	0.0.0.0	(#: Skip)
7	Transfer Fault Recall Timer	001~300	010	1 second increments
8	VoIP Call Reroute	IP Grp		
PGM Code: 322 -Network CO Line Attributes				
1	Network CO Line Group	00~24	00	CO group programming for Networking call between systems.
2	Net CO Line Type	0: PSTN, 1: QSIG	0: PSTN	
PGM Code: 324 -Network Numbering Plan Table				
1	System Use	0: NET, 1: PSTN	0:NET	
2	Numbering Plan Code	16 digits	-	
3	Numbering Plan Net CO Group	00~24	-	
4	CPN Information	Flex 1~2	-	Flex1: ISDN, Flex2: VOIP
5	Alternate Speed Bin MFIM MFIME	200~999 2000~4999	- -	
6	Destination MFIM/E IP Address	IP address	0.0.0.0	(Skip: #)
7	Destination MFIM/E Port No	0000-9999	5588	
8	Digit Repeat	0: NO, 1: YES	0: NO	
9	Net PSTN Enblock	0: NO, 1: YES	0: NO	
10	CO ATD code CLI	1: ON, 0: OFF	0: OFF	
11	Firewall	1: ON, 0: OFF	0: OFF	
PGM Code: 325 -Network Feature Code				
1	Net Feature Code	16 digits	-	
2	Net Feature Destination	16 digits	-	

TABLE D-11
NATION SPECIFIC

Button	SUB-MENU	RANGE	REMARK
PGM Code: 400 -IP Phone (H/S) Receive Gain Control			
-	IPKT Rx Gain	Flex 1-8	
PGM Code: 401 -IP Phone (H/F) Receive Gain Control			
-	IPKT Rx Gain	Flex 1-8	
PGM Code: 402 -SLTM Receive Gain Control			
-	SLTM Rx Gain	Flex 1-8	
PGM Code: 403 -ACOB Receive Gain Control			
-	ACOB Rx Gain	Flex 1-8	
PGM Code: 404 -DCOB Receive Gain Control			
-	DCOB Rx Gain	Flex 1-8	
PGM Code: 405 -VSF Receive Gain Control			
-	VSF Rx Gain	Flex 1-8	
PGM Code: 406 -External Page Receive Gain Control			
-	Ext. Page Rx Gain	Flex 1-8	
PGM Code: 420 -System Tone Cadence			
-	Sys Tone Cadence	01-37	
PGM Code: 421 - System Tone Frequency			
-	Sys Tone Frequency	01-37	
PGM Code: 422 -Tone Generation Gain			
-	Tone Generation Gain	01-37	
PGM Code: 423 -ACNR Tone Cadence			
-	ACNR Tone Cadence	1-5	
PGM Code: 424 -ACNR Ring Frequency			
-	ACNR-Ring Frequency	1-5	
PGM Code: 425 -SLT Tone Cadence			
-	SLT Tone Cadence	1-2	
PGM Code: 426 -DTMF PCM Tone Generation Gain			
-	DTMF PCM Tone Generation Gain	1-5	
PGM Code: 427 -DTMF RTP Tone Generation Gain			
-	DTMF RTP Tone Generation Gain	1-4	
PGM Code: 429 -LGCM Configuration			
-	LGCM Configuration Type	1-5	

TABLE D-12
RSGM DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 430 -RSGM and Associated Device Information				
1	RSGM IP Address	IP address	0.0.0.0	
2	RSGM MAC Address	MAC address	Not Assigned	
3	RSGM Associated IP Phone	Station	None	
4	RSGM Associated SLT	Station	None	
5	RSGM Associated CO Line	CO Line	None	
PGM Code: 431 -RSGM Multi-cast Port				

1	Multicast RTP Port, Int. BGM	4 digits	8136	
	Multicast RTP Port, Ext 1	4 digits	8138	
2	Multicast RTCP Port, Int. BGM	4 digits	8137	
	Multicast RTCP Port, Ext 1	4 digits	8139	
PGM Code: 432 -RSGM External Contact				
1	First Contact	1~ 1	-	1: Door
2	Second Contact	1~ 1	-	
PGM Code: 433 -RSGM Alarm Signal				
1	Alarm Enable	1: ON, 0: OFF	0: OFF	
2	Alarm Contact Type	1: Close, 0: Open	1: Close	
3	Alarm/Door Bell Mode	1: Alarm, 0: Door-Bell	1: Alarm	
4	Alarm Signal Mode	1: Repeat, 0: Once	1: Repeat	
PGM Code: 434 -RSGM MOH Source				
1	MOH Type	0~1	1	0 : None (Tone Generate) 1 : MOH (MUSIC Play)
2	Int/Ext1 Music	0~1	0	0 : Internal MOH 1 : External MOH
PGM Code: 435 -Remote Service Attributes				
1	RTP Relay GW Slot Seq	3 digits	-	
2	Diff-Serve Code	00~63	4	
3	First CO Access Option	RSGM (0), SYSTEM (1)	RSGM (0)	
4	Firewall Protected	1: ON, 0: OFF	1: ON	

TABLE D-13
TNET DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
Web Only: -TNET Basic Attributes				
	TNET Enable	ON/OFF	OFF	
Web Only: -TNET CM Attributes				
	Register Enable	ON/OFF	OFF	
	IP Address	IP address		
	iPECS Protocol port number	4 digits	5588	
	Total number of ports	3 digits		
	Station ports	3 digits		
	CO/IP ports	3 digits		
	VMIM/VSF ports	3 digits		
	MCIM ports	3 digits		
Web Only: -TNET LM Attributes				
	MAC Address	Mac address		
	IP Address	IP address		
	iPECS Protocol port number	4 digits	5588	
	Total number of ports	3 digits		
	Station ports	3 digits		
	CO/IP ports	3 digits		
	VMIM/VSF ports	3 digits		
	MCIM ports	3 digits		
Web Only: -TNET FoPSTN Table				
	Numbering Plan	Station numbers		

	CO Group MFIM & 100 MFIMs Other	00 ~ 21 00 ~ 73		
	Telephone number	24 digits		

TABLE D-14
ZONE DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
Web Only:	**-Device/Gateway Zone Number**			
	Zone Number	1 ~ 32	1	
Web Only:	**-Device Zone Attributes**			
	Device Password	12 digits		
	DiffServ Pre-tag	0 ~ 63	4	
	Nation Code		MFIM	
	Codec Type	Board or Zone	Board	
	RTP Relay Group	0 ~ 15	0	
	PAGE Area Group	0 ~ 15	0	
	VMIM/VSF Sequence number	Sequence number		
	Remark	21 Characters		
Web Only:	**-Access & Page Relay**			
	Page RTP Relay to Zone	ON/OFF	OFF	
	Page by RTP Relay from Zone	ON/OFF	OFF	
Web Only:	**-Zone Attributes**			
	Nation Code		MFIM	
	Codec Type	G.711, 723.1, 729, System	System	
	RTP Relay Rule	If needed, Relay Group	If needed	
	1st RTP Relay Gateway Sequence	Sequence number		
	2nd RTP Relay Gateway Sequence	Sequence number		
	VMIM/VSF Gateway Sequence	Sequence number		
	Remark	21 Characters		
Web Only:	**-Zone RTP Relay Group**			
	RTP Relay	ON/OFF	OFF	Each RTP Relay group
Web Only:	**-Inter-Zone Attribute**			
	Codec Type	G.711, 723.1, 729		
	RTP Relay Rule	If needed, Relay Group	If needed	
	RTP Relay Device Utilization	Both/Separate	Both	
	Source RTP Relay Gateway Sequence	Sequence number		
	Destination RTP Relay Gateway Seq.	Sequence number		
PGM Code: 444	**- Zone Holiday Assignment**			
1	Ring Mode	0-3 0:DAY 1: NIGHT 2:TIMED 3: N/A	2:TIMED	
2	Vacation	12 digits	-	
3	Holiday	4 digits	-	

TABLE D-15
DEVICE LOGIN DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
Web Only: -Remote Phone & CO Gateway Registration				
	MAC Address	Mac Address		
	Password	12 digits		
	Zone	01 ~ 32	01	
	Nation Code			
Web Only: -Station User Login				
	Registered Number	Station number		
	User ID			
	Password	12 digits		
	Zone	01 ~ 32	01	
	Desired Number	Station Number		
	Nation Code			
	Language			

TABLE D-16
INITIALIZATION

ITEM		DESCRIPTION	REMARKS
PGM Code: 450 -Initialization			
1	Flexible Numbering Plan		
2	Station Data		
3	CO Line Data		
4	System Data		
5	Station Group Data		
6	ISDN Data		
7	System Timer Data		
8	Toll Table Data		
9	LCR Table Data		
10	Tables		
11	Flexible Button Data		
12	Network		
13	All Data		
14	System Reset		

TABLE D-17
DATABASE PRINT-OUT

ITEM	DESCRIPTION	
PGM Code: 451 -Database Print-out		
1	Flexible Numbering Plan	
2	IP Setting Plan	
3	Station Data	Enter station range
4	CO Line Data	Enter CO range
5	System Data	
6	Station Group Data	
7	ISDN Data	
8	System Timer Data	

ITEM	DESCRIPTION	
9	Toll Table Data	
10	LCR Table Data	
11	Tables	
12	Nation Specific Data	
13	Flexible Button Data	Enter station range
14	All Data	
15	LCD Message	
16	QUIT Print Out	
17	String Length	10 or 20 character
18	Board Base Attributes	
19	Database Print-out	

TABLE D-18
VIRTUAL DIP SWITCH

Button	SUB-MENU	RANGE	REMARK
PGM Code: 452 -Virtual Trace Dip Switch Access			
1	Call Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
2	VoIP Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
3	HTTP Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
4	Multicast Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
5	CTI Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
6	Raw Trace	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
PGM Code: 453 -Virtual Dip Switch Access			
1	Device Polling	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
2	SMDI Setting	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
3	Multicast LED	ON/OFF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is ON)
4	Auto Negotiation	MANUAL/AUTO	Press Flex Button (Toggle: ON/OFF, LED lights if trace is Manual)
5	Full or Half duplex	FULL/HALF	Press Flex Button (Toggle: ON/OFF, LED lights if trace is HALF)
6	100 M or 10 M Tx/Rx bps	100/10	Press Flex Button (Toggle: ON/OFF, LED lights if trace is 10 M bps)

TABLE D-19
DECT DATA

Button	SUB-MENU	RANGE	DEFAULT	REMARK
PGM Code: 491 -DECT ATTRIBUTES				
1	AUTO CALL RLS	ON/OFF	OFF	
2	BASE FAULT ALARM	Enable/Disable	Disable	
3	CHAIN FAULT ALARM	Enable/Disable	Disable	

PGM Code: 492 –WTIM(DECT) RX Gain Control

-	WTIM RX Gain	Flex 1-10		

PGM Code: 493 –Device RX Gain Control from WTIM(DECT)

-	DEV RX Gain from WTIM	Flex 1-9		

PGM Code: 494 –WTIM(DECT) TX Gain Control

-	WTIM TX Gain	Flex 1-10		

PGM Code: 495 –Device TX Gain Control to WTIM(DECT)

-	DEV TX Gain to WTIM	Flex 1-9		

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